# TEAC® A-6010SL

STEREO TAPE DECK

## SERVICE MANUAL

**TEAC CORPORATION**

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MT6011E100

PRINTED IN JAPAN 8718 ·S·0032

# 1 GENERAL DESCRIPTION

The TEAC A-6010 has achieved an enviable reputation for quality since its introduction five years ago. During this period many design improvements and modifications have been incorporated. However, the recent introduction of more versatile, improved tape products called for extensive modification and redesign in order to provide proper utilization of these tapes. Therefore we have produced the new A-6010SL,to provide complete flexibility in selection of recording tapes and to meet the stringent requiements of these tapes.

The basic design of the A-6010SL is highly similar to that of the A-6010, Therefore information in this service manual may be applied to the A-6010.

If adjustments or repairs are too complicated and are difficult for you to accomplish, or if you have any technical questions, please contact the nearest TEAC dealer or TEAC Corporation or affiliated corporations.

## INDEX


1. GENERAL DESCRIPTION
2. SERVICE DATA
3. EQUIPMENT REQUIRED
4. PARTIAL DISASSEMBLY
5. HEAD ALIGNMENT -MECHANICAL-
6. MEASUREMENT AND ADJUSTMENT -MECHANICAL-
7. MEASUREMENT AND ADJUSTMENT -ELECTRICAL-
8. PREVENTIVE MAINTENANCE
9. TROUBLE SHOOTING
10. WARRANTY
11. PACKING FOR SHIPMENT
12. SCHEMATIC DIAGRAMS
13. PRINTED CIRCUIT BOARD AND PARTS LIST
14. EXPLODED VIEW AND PARTS LIST
15. MANUAL CHANGES

# 2 SERVICE DATA

## MECHANICAL

| | |
|---|---|
| Heads: | 4-4 track 2 channel stereophonic.<br>Erase Record Forward play and Reverse play;<br>Erase head,<br>1.8k ohm/100kHz, erase current approx. 30mA<br>Record section,<br>100 ohm/1kHz, bias current approx. 2mA<br>Playback,<br>3k ohm/1kHz -63dB |
| Tape Width: | Standard 1/4 inch tape |
| Tape Speed: | 3-3/4ips and 7-1/2ips(±0.5%) |
| Motors: | 1 - two speed hysteresis synchronous motor for capstan drive.<br>2 - six pole eddy current motors for reel drive. |
| Wow and Flutter: | 0.06% at 7-1/2ips.<br>0.09% at 3-3/4ips.<br>Wow and flutter measured according to weighted NAB standard using TEAC flutter free tape. |
| Fast Winding Time: | Approx. 90 second or less for 1,200 feet. |
| Operating Position: | Horizontal or vertical. |
| Power Requirements: | 100/117/200/220/240V AC 50/60Hz 140W |
| Weight: | 52 lbs(net.) |

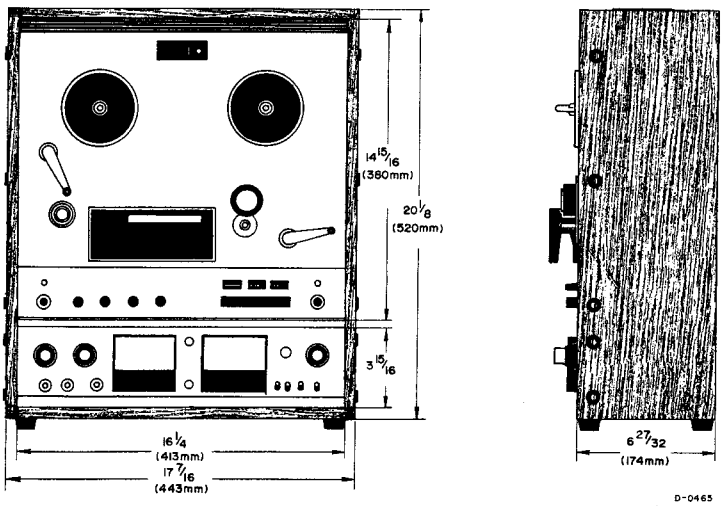



Fig. 2-1 Dimensions

## ELECTRICAL

| | |
|---|---|
| Transistors: | 2SC1000BL x 2 2SC733Y or 2SC536F x 5<br>2SA572YL4 x 2 2SC971 x 2<br>2SC536F x 2 2SD 235 x 1<br>2SC693F x 2 2SA494-Y x 2 |
| IC: | IC101/201 TEAC 42709<br>IC102/202 TEAC 42709<br>IC103/203 TEAC 42710 |
| Diodes: | SIB01-02 x 5, SIB01-06 x 8 |
| Frequency Response: | Overall from recording INPUT to playback OUTPUT.<br>7-1/2ips, ±2dB 30Hz - 20kHz<br>3-3/4ips, ±2dB 40Hz - 10kHz |
| Equalization: | NAB equalization<br>7-1/2ips 50u sec. 3-3/4ips 90u sec. |
| Input: | MIC: 600 ohms, -70dB(0.25mV)<br>LINE: 50,000 ohms or more, 0.1V |
| Output: | LINE: 0.3V for load impedance of 10,000 ohms or more<br>HEADPHONES: 8 ohms |
| Bias Freq.: | 100kHz push-pull oscillator |
| Signal to Noise Ratio: | 50dB or more<br>Peak record level to unweighted noise |
| Cross talk Rejection: | Channel to channel at 1kHz/45dB or more<br>Adjacent track at 100Hz/40dB |
| Erase Efficiency: | 65dB or more at 7-1/2ips |

**NOTE**

As a result of continuing changes and improvements during the production run, minor differences may be found between early and later machines, refer to manual change sheets for information concerning modifications.

# 3 EQUIPMENT REQUIRED

## FOR MECHANICAL MEASUREMENT

| | |
|---|---|
| SPRING SCALE: | 0 - 3kg(0 - 8 lbs)<br>0 - 300g(0 - 10 oz) |
| TEST TAPE: | TEAC YTT-2003 (7-1/2ips)<br>TEAC YTT-2002 (3-3/4ips) |
| FLUTTER METER: | SENTINEL INC FL-3D-1 |
| DIGITAL FREQ. COUNTER: | Capable of 0 to 5kHz indication. |
| TOOLS: | General, 2mm nut driver, Hex head Allen wrench |

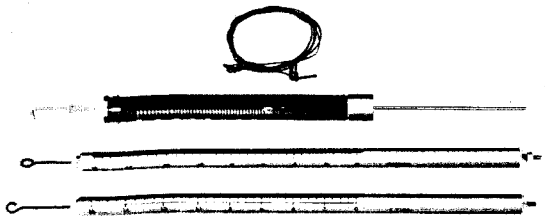


Fig. 3-1 Spring Scale

Fig. 3-2 TEAC Hex Allen Wrench

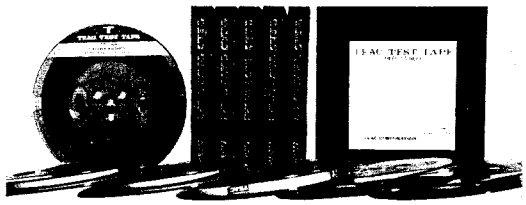


Fig. 3-3 TEAC Test Tapes

## FOR ELECTRICAL MEASUREMENT

| | |
|---|---|
| TEST TAPE: | TEAC YTT-1003 for 7-1/2ips<br>TEAC YTT-1002 for 3-3/4ips |
| | SCOTCH 203 and 150 for recording test. |
| EMPTY REEL: | TEAC RE-702(2" hub)<br>TEAC RE-701(4" hub) |
| TEST SET: | TEAC M-826A test set |

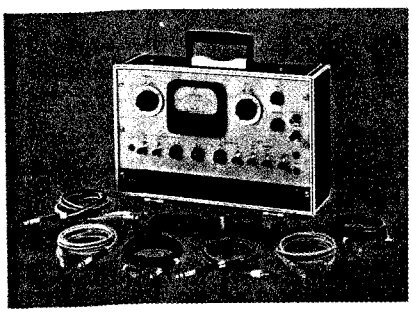


Fig. 4-4 TEAC Test Set

**NOTE**

Use of the TEAC M-826A test set is recommended. This set incorporates an AC VTVM, Audio Oscillator, Channel Selecting switch, Variable Attenuator, Monitor Speaker and Cables.

TEAC M-826A measures the RMS value of the Voltage(0dB=0.775V). Characteristics of this test set are similar to the standard VU-meter.

| | |
|---|---|
| BAND PASS FILTER: | TEAC M-206A(1kHz) |
| VTVM: | hp model 4302B or equivalent |
| RESISTOR: | Non inductive type 8ohm/1W |
| OSCILLOSCOPE: | General purpose |

# 4 PARTIAL DISASSEMBLY

CAUTION

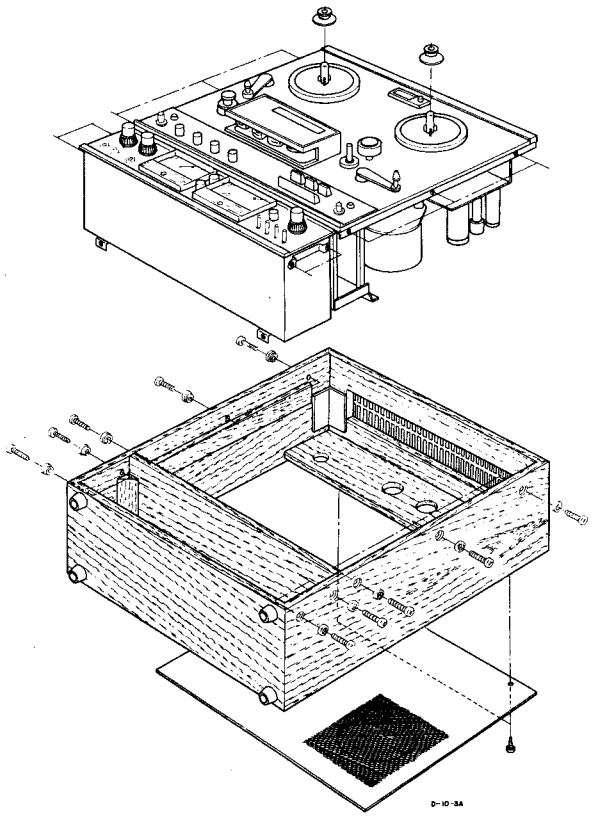
Do not attempt complete disassembly of any of the subassemblies.
The list of individually replaceable parts in the exploded view should be used as a guide to disassembly limits.

Tape Transport:

1. Remove power cord and other connecting cords.
2. Lay the equipment face down on a soft mat.
3. Remove the 2 rear cover screws.
4. Remove 3 upper screws on both sides of the case.
5. Lift the case from the transport.

Amplifier:

1. Remove 2 screws on both sides of the case.
2. Lift the amplifier from case.



Removing the equipment from case

## HEAD REPLACEMENT

**CAUTION**

Power to the unit must be switched off when removing the heads, this to prevent transient pulses from passing through the heads causing strong magnetization or damage to the delicate windings. After head replacement, thorough demagnetization is recommended.

NOTE

The heads of the A-6010SL can be changed either as a complete assembly or individually as necessary.

## HEAD ASSEMBLY REPLACEMENT

To change the head assembly as a unit, remove the four mounting screws, (one on each end).
Note the positions of the wires on the circuit board before unsoldering.
Solder the wires of the new heads in exactly the same positions.

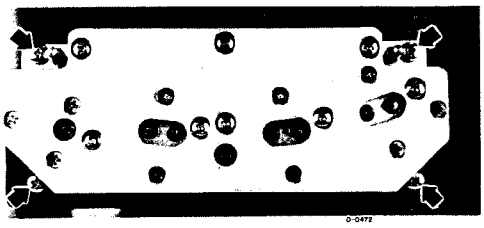


Fig. 4-1 Head Assy

## INDIVIDUAL HEAD REPLACEMENT

To replace a single head, a special 2mm nut driver is required. Remove the two nuts on the defective head through the access hole provided, this releases the head from the mounting plate. Note the position of the wires on the circuit board. Connect the new head in the same manner.
Replace the nuts securing the new head to the plate, perform head alignment before operation.
Head installation mounting provides for left or right positioning. After installing heads, determine proper position while recording or playing back a tape.

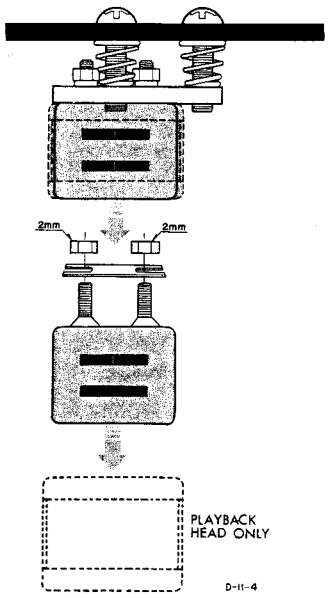



Fig. 4-2 Individual Heads

## CAPSTAN MOTOR

1. Remove the fan.
2. Remove the capstan belt.
3. Remove the top ⓜ spring clips holding mount stand offs.
4. Remove the four screws holding the motor and shield plate. -(top)
5. Unsolder the six wires connecting the capstan motor.
6. Remove the four screws holding the motor and shield plate. -(bottom)
7. Loosen the two set screws (HEX HEAD) in pulley and lift off pulley.

NOTE

After motor replacement, check position of capstan pulley on shaft for proper alignment with belt guide.

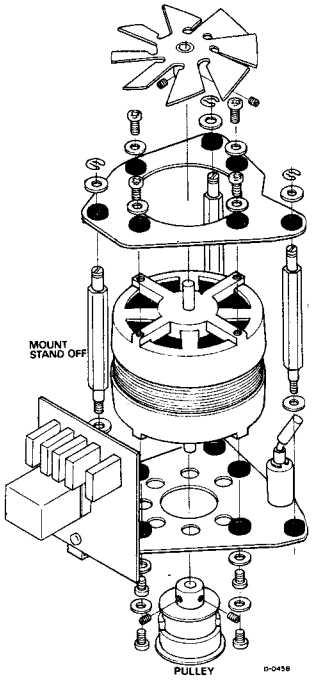



Fig. 4-3 Capstan Motor Removal

## REEL MOTOR

NOTE

Reel motor assemblies are mirror images of each other, these assemblies are not interchangeable.

1. Using hex head wrench, loosen the two screws on the counter belt pulley. Remove pulley(right turntable only).
2. Remove the rubber insert, then remove the three screws holding reel table to motor.
3. Remove the three screws holding the reel motor to the mount.
4. Unsolder four wires connecting the reel motor and remove motor from panel.

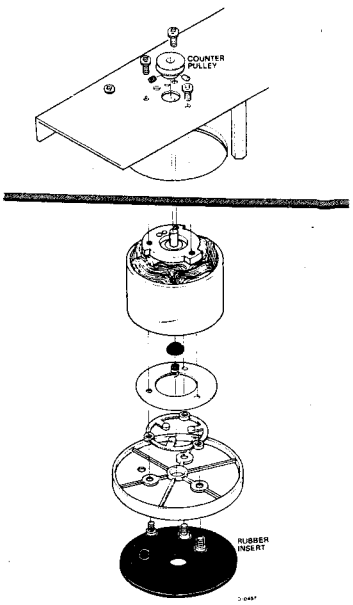



Fig. 4-4 Reel Motor Removal

## CAPSTAN ASSEMBLY

CAUTION

A clearance of 0.02" must be maintained between the flywheel and capstan assembly.

1. Unscrew capstan cover(front panel).
2. Remove two screws from rear bracket, allow bracket to drop forward floor case.
3. Remove capstan belt.
4. Loosen two screws in capstan assy. flywheel.
5. Remove three screws in capstan assy.
6. Gently move capstan assy up and down until it slides out of panel.

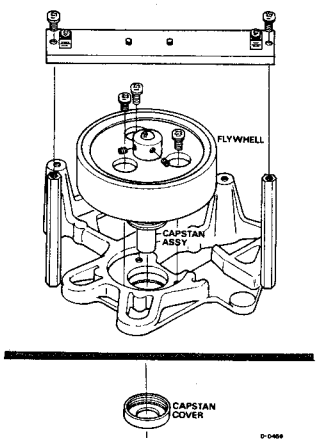



Fig. 4-5 Capstan Assy Removal

## TENSION ARM ASSY -LEFT-

1. Remove coil spring.
2. Unscrew spring rod.
3. Remove the brass collar and washer.
4. Unsolder the two wires (1 white, 1 black) from terminal strip.
5. Lift out tension arm.

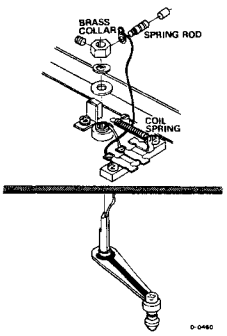



Fig. 4-6 Tension Arm -Left-

## TENSION ARM ASSY -RIGHT-

1. Remove coil spring.
2. Loosen set screw in retainer assy.
3. Remove retainer assy and washer.
4. Lift out tension arm.

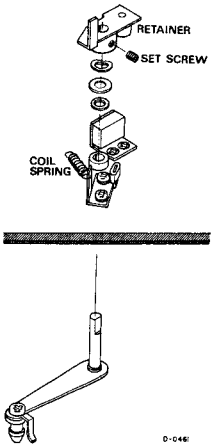



Fig. 4-7 Tension Arm -Right-

# 5 HEAD MECHANICAL ALIGNMENT

NOTE

Head alignment is adjusted at the factory to very critical tolerances. Normally HEAD ASSEMBLY replacement will require only minor alignments or adjustments.
Complete readjustment should only be necessary after an individual head is replaced.
The adjustments are made as follows:

## ERASE HEAD SECTION

The erase head pole should be above the edge of a threaded tape by the width of heavy pencil line.

## RECORD HEAD SECTION

The record head pole should be above the edge of a threaded tape by the width of a thin pencil line.

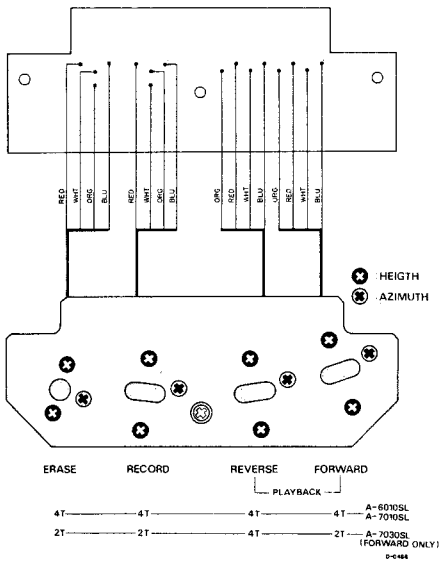



Fig. 5-1 Head Alignment And Adjustable Screw

## PLAYBACK HEAD -FORWARD-

The pole of the playback head should be even with the top of a threaded tape.

## PLAYBACK HEAD -REVERSE-

The pole of the playback head should be even with the bottom of a threaded tape.

NOTE

Azimuth adjustments are given in the section on MEASUREMENT AND ADJUSTMENT -ELECTRICAL-

# 6 MEASUREMENT AND ADJUSTMENT
## -MECHANICAL-

NOTE

The TEAC A-6010SL uses a highly reliable three motor drive system and should require a minimum of mechanical maintenance or adjustment.
These adjustments are made at the factory. Readjustment should only be required after many hours of operation or component replacement.

### PINCH ROLLER PRESSURE

NOTE

Pinch roller pressure is supplied by pinch roller spring arm only and it is most important that the solenoid plunger be fully bottomed before taking pressure measurement.

1. Load tape or lock the shut-off arm in the on position.
2. Attach a suitable spring scale to the pinch roller shaft.
3. Place the unit in the( ▷ ) PLAY mode, and holding the spring scale as illustrated, slowly draw it away from the pinch roller.
4. Do not allow the string to rub against the pinch roller.
5. Note the reading on the spring scale at the instant the pinch roller stops rotating.
6. The scale should indicate 2.8 - 3.1kg (6.6 - 7.2 lbs). Optimum value is 3.0kg.
7. If adjustment is necessary, adjust the takeup double nut on the CAPSTAN SOLENOID.

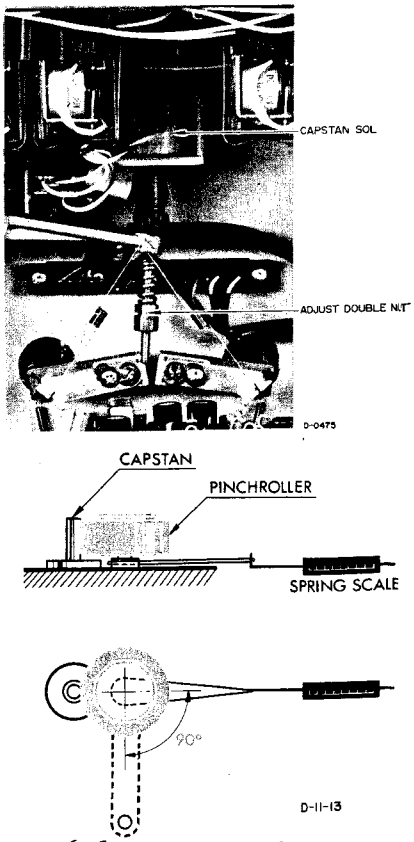



Fig. 6-1 Pressure Measurement
-Pinch Roller-

## TORQUE MEASUREMENT PROCEDURE

**IMPORTANT**

Be sure the full required line voltage is applied and that the unit is set to the proper line frequency.

BACK TENSION Forward

1. Load tape or block the shut-off arm in the on position.
2. Place an empty 7" reel with a 2" diameter hub on left reel table.
3. Rotate the reel and wind several turns of string around the hub. Attach spring scale to string.
4. Place the unit in the ( ▷ ) play mode.
5. Pull the scale away from the reel against the motor torque, with a smooth steady motion.
6. Note the scale reading while it is in steady motion.
7. Make sure the string does not rub against the reel flanges.
8. If necessary, abjust resistor R-4 slider (B) until a scale reading of 210 - 230g/cm (2.9 - 3.2oz-inch) is obtained.

Reverse

9. To check the reverse back tension, place the reel and spring scale on the right reel table (see figure) and repeat above procedure pressing ( ◁ ) play button.
10. If necessary, adjust resistor R-3 slider (B) until a scale reading of 240 - 260g/cm (3.4 - 3.6oz-inch) is obtained.

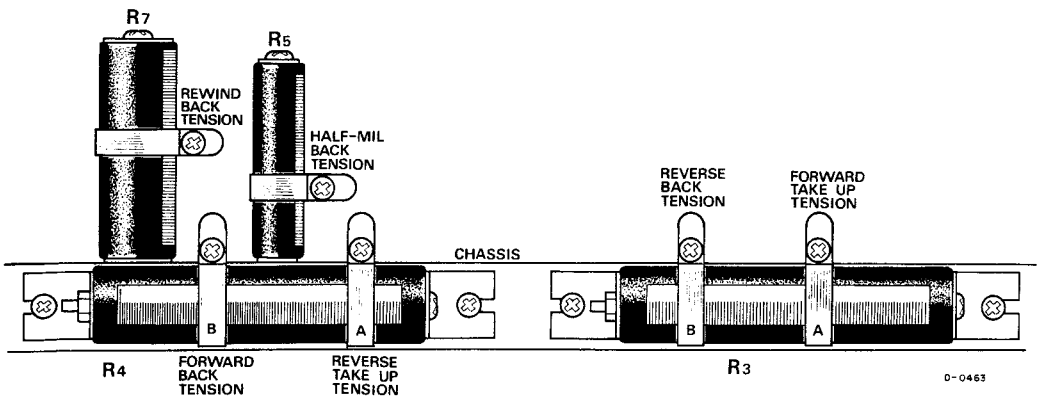



Fig. 6-2 Adjustable Tension Resistor

## TAKE-UP TORQUE -Forward-

1. Place the empty reel and attached spring scale on the right reel table.
2. Place the unit in the ( ▷ ) play mode.
3. Allow the rotation of the reel to slowly draw the scale toward the hub.
4. Hold the spring scale with enough force to allow a steady reading.
5. If necessary, adjust resistor R-3 slider (A) until a scale reading of 340 - 370g/cm (4.8 - 5.2oz-inch) is obtained.

Reverse:

6. Place the empty reel and spring scale on the left reel table and select ( ◁ ) reverse play mode.
7. The measurement of reverse take-up torque is as above with the exception that rotations are clockwise.
8. If necessary, adjust resistor R-4 slider (A) until a scale reading of 470 - 510g/cm (6.6 - 7.1oz-inch) is obtained.

## HALF-MIL TENSION

When the TAPE button is in the THIN position, the reading on the scale should decrease by 1/3 ounce from the normal reading. If adjustment is required, adjust the slider of R-5.

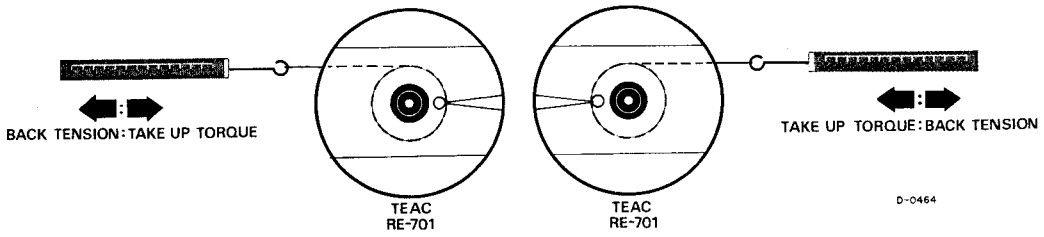



Fig. 6-3 Torque Measurement

## REWIND BACK TENSION

1. Load a full 1,800ft reel of tape on the right reel table.
2. Place the empty reel with 2" hub on the left reel table.
3. Place the unit in the fast rewind mode, ( ◁ ).
4. Attach scale to right tension arm tape guide exert steady pull on scale until tension arm begins to move to the right at this point. A reading of 50±10g(0.7oz-inch) should be obtained. If different adjust resistor R-7 slider to obtain proper reading.

## BRAKE TORQUE

**NOTE**

The brake torque is actuated mechanically. Pressure is set by the variable spring force.
While making this measurement and adjustment, be carefull not to bend the brake bands.
As brake torque will change with cleaning brake drums and brake shoes should be cleaned only when absolutely necessary. If cleaning is required, use TEAC cleaner TZ-251B only. After cleaning operate the machine for some time before performing the below procedures.

1. Brake adjustments are made with no power applied to the unit.
2. Place an empty 4" hub reel on the left reel table, and fasten one end of a 30" length of string to the reel anchor.
3. Wind several turns of string counterclockwise around the hub and attach a suitable spring scale to the free end of the string.
4. Pull the spring scale away from the reel, making sure that the string does not rub the reel flanges.
5. Take a reading only when the reel is in steady motion since the force required to overcome static friction will produce a false, excessively high initial reading.
6. The reading should be 1,500±50g.
7. If different, adjust the left motor brake by holding the adjusting rod and loosening the nut on the locking collar. Then slide the rod through the collar and retighten the nut. Pulling the rod out tightens the brake.
8. To adjust the right reel brake repeat all steps as described for the left reel with the exception that all directions of rotation are clockwise.

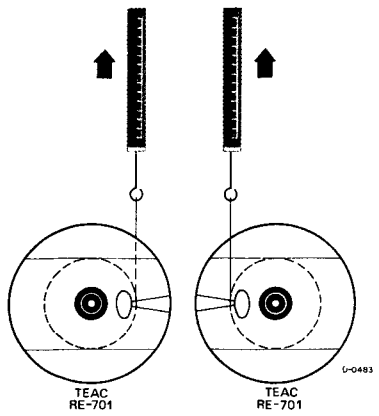



Fig. 6-4 Torque Measurement
-Brake-

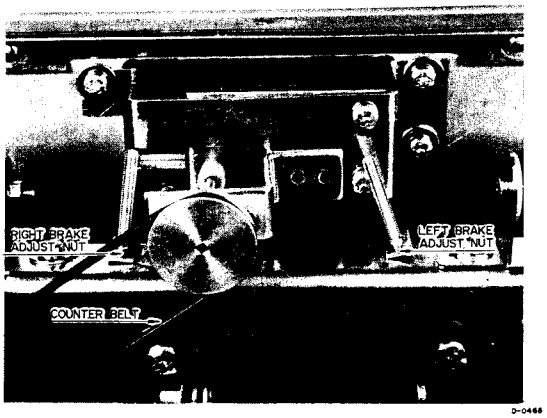



Fig. 6-5 Adjustable Location
-Brake-

**IMPORTANT**

The difference in torque between the right and left brake should be kept within 50g(0.7oz-inch).

## FLUTTER

Flutter should be measured in playback mode using a TEAC flutter free tape YTT-2003·2002 and a Sentinel Inc model FL-3D-1 flutter meter.
Measurement of flutter should be made in accordance with NAB standards.
Values obtained by a different standards or equipment cannot be compared.
Flutter should not exceed 0.06% for 7-1/2ips and 0.09% for 3-3/4ips.
These figures apply to any tape position and direction(such as full take-up reel, full supply reel or about mid point). If flutter is excessive, refer to trouble shooting chart in this manual.

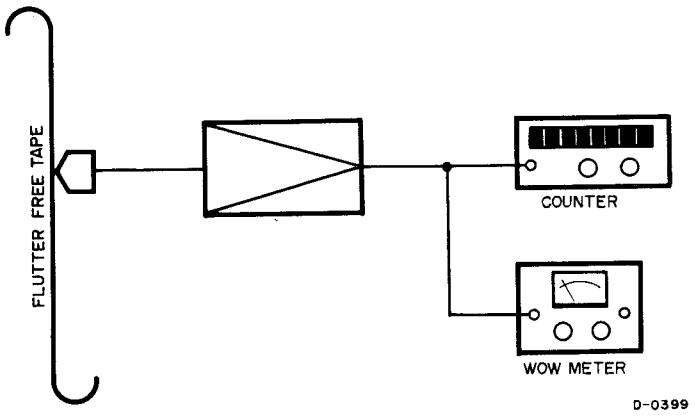



Fig. 6-6 Test Equipment Set-Up Flutter And Tape Speed

## TAPE SPEED

The tape speed should be measured using TEAC flutter free tape, model YTT-2003·2002.
These tapes contain a highly accurate 3kHz tone.
Connect a digital frequency counter to either line LINE OUT jack.
The indicated frequency should be 3kHz 0.7% for all speeds.

## FAST WIND TIME

NOTE

Clean all tape guide components and check for proper AC line voltage.

Using a 1,200 foot tape on a 7" reel, the fast wind time(fast forward or fast rewind) should be 90 seconds or less.

## VOLTAGE AND FREQUENCY CONVERSION

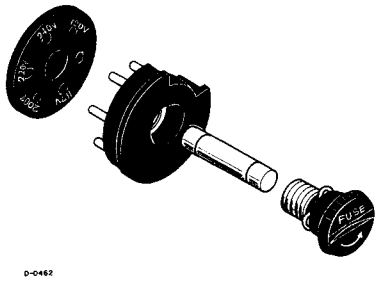
Uuit must be set to the power line frequency available. Improper frequency setting will result in a 20% error between the tape speed and reel motors torque.

**NOTE**

US model is preset to 117V AC and 60Hz. No frequency conversion is required.
If it should be necessary to convert the A-6010SL deck to operate from a power source of different voltage or frequency, it may be easily accomplished as follows:

Voltage Conversion:

The A-6010SL may be set for 100, 117, 200, 220 or 240 volts. To change the voltage unscrew the fuse in the center of the voltage selector plug. Pull out the plug and reinsert it so the desired voltage shows in the cutout. Reinstall the fuse.




D-0462

Fig. 6-7 voltage convrsion

Frequency Conversion:

1. Disconnect power cord and remove rear deck cover.
2. Set frequency selector switch (above motor) to the required frequency.
3. Loosen red washered screw holding frequency shift lever in position.
4. While manually rotating the motor counterclockwise push frequency lever in for 50Hz - pull out for 60Hz operation. This lever changes the belt to the proper pulley steps.
5. Tighten the red washered screw to lock frequency shift lever into position.

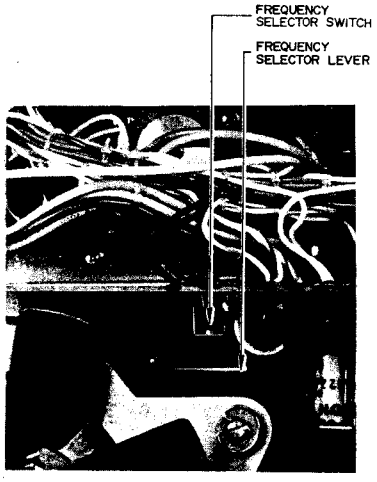



Fig. 6-8 frequency convrsion

D-0470

# 7 MEASUREMENT AND ADJUSTMENT

## -ELECTRICAL-

GENERAL NOTICE

Before performing maintenance on this unit, thoroughly clean and demagnetize the entire tape path.

It is important that the unit be set to the proper voltage and frequency for your locality.

TEAC specified standard test tapes and test equipment must be used when performing maintenance to insure reliable results.

Procedures for checks and adjustments, unless otherwise indicated, are for the left channel at a tape speed of 7-1/2ips. The same procedures are to be applied to the right channel and again for both channels at 3-3/4ips, and both directions of playback.

All controls mentioned in this book will be printed in bold letters and will be exactly as they appear on the unit.

Double designated symbol numbers refer to left channel/right channel.

T H D : Third Harmonic Distortion.

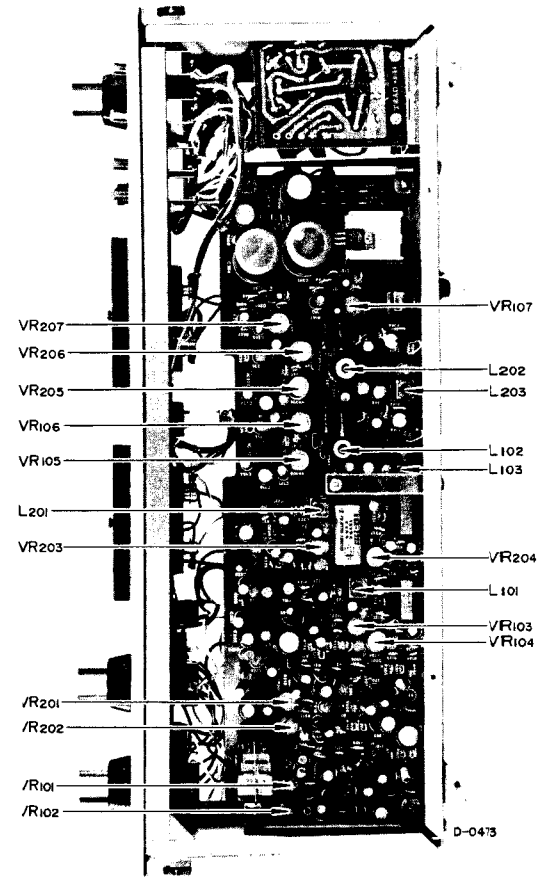



Fig. 7-1 Adjustable Parts Location

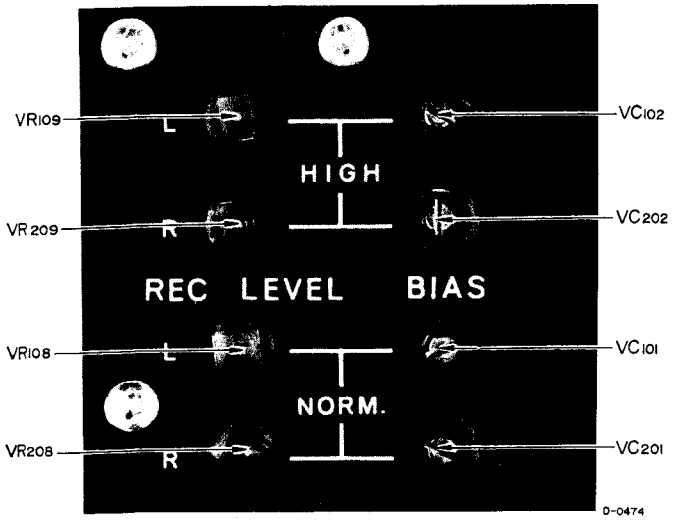



Fig. 7-2 REC Level Bias Adjustable Location

NOTE

HIGH: For use with high performance tapes such as Scotch 203 or BASF LP-35LH.

NORMAL: For use with conventional tape such as Scotch 150 or equivalent.

VR103/203 PLAYBACK LEVEL SET
VR104/204 VU METER CAL. -NORMAL-
VR107/207 VU METER CAL. -HIGH-
VR101/201 PLAYBACK EQ. (7-1/2ips)
VR102/202 PLAYBACK EQ. (3-3/4ips)
VR105/205 INPUT LEVEL SET
VR106/206 VU METER CAL. -INPUT-
L103/203 BIAS TRAP -REC AMP-
L101/201 BIAS TRAP -LINE OUT-
L102/202 REC EQ. FOR 7-1/2ips.

VC102/202 HIGH, BIAS ADJ.
VC101/201 NORMAL, BIAS ADJ.
VR109/209 HIGH, REC LEVEL SET
VR108/208 NORMAL, REC LEVEL SET

PLAYBACK PERFORMANCE

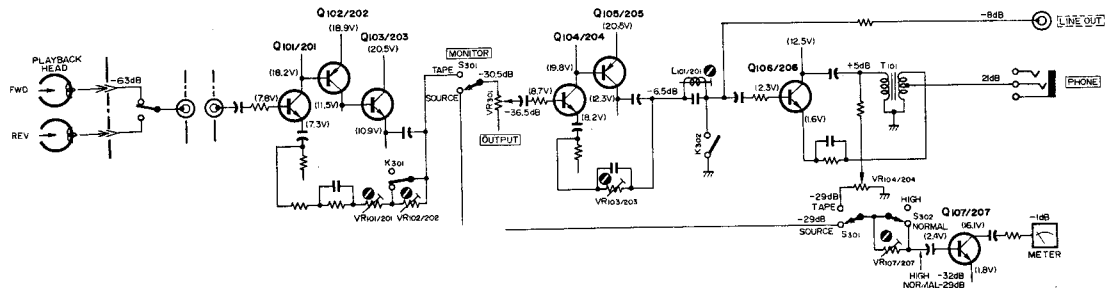



Fig. 7-3 Simplified Diagram -Playback-

## PLAYBACK HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

1. Connect a level meter to either LINE OUT jack.
2. Thread a TEAC test tape YTT-1003 on the unit.
3. Play the 15kHz test tone in section 2 of the test tape.
4. Slowly rotate the azimuth screw until maximum indication is obtain on the level meter. Repeat step 4, procedure for reverse head.

> NOTE
>
> If during playback, a slight pressure on the heads results in a rise of the reading of the level meter, head alignment adjustments should be accomplished.

Fine Adjustment

> CAUTION
>
> After coarse adjustment, do not make large corrections, turn Azimuth screw 1/4 turn or less.

5. It is absolutely essential to accomplish the coarse adjustment before using this method to avoid phase errors larger than 45°.
6. Connect the test equipment as shown in Fig. 7-10
7. Play a 10kHz signal and adjust the azimuth screw until the oscilloscope shows that the signals are less than 45° in phase. Repeat above step for reverse head.
8. Secure the screw with a drop of LOCTITE.

## SPECIFIED OUTPUT LEVEL SET

NOTE

Connect a 10kohm load to the LINE OUT jacks when not using the TEAC M-826A output meter.

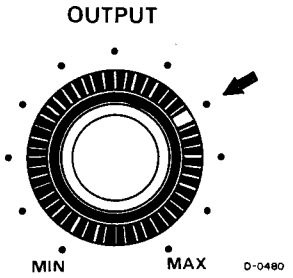
9. Play the 400Hz tone in section 1 of the test tape. This tone is recorded at operating reference level (1% of the THD level).
10. Turn the OUTPUT controls to the two o'clock position.
11. Adjust VR103/203 for -8dB reading on level meter.

NOTE

Level differences during forward and reverse playback should not exceed 2dB. If larger, clean and demagnetize heads, check the head alignment.

IMPORTANT

This is the specified output level set. Do not disturb this setting until the remaining adjustments have been completed.




## VU METER CALIBRATION -PLAYBACK-

12. While playing the 400Hz tone(1% THD) in section 1 of the test tape, RECORD LEVEL switch in NORMAL, adjust VR104/204 for reading of 0 VU on the VU meter.
    RECORD LEVEL switch in HIGH, adjust VR107/207 for reading of -3 VU on the VU meter.

## FREQUENCY RESPONSE

13. Play the test tones from 15kHz down to 40Hz. (Recorded at 10dB below operating reference level.)
14. Compare the readings obtained on the level meter with the response limits given in Fig. 7-4
15. If adjustment is required, adjust VR101/201 at 7-1/2ips and VR102/202 at 3-3/4ips. Adjust these trimmers for most even VU meter readings above 7.5kHz, trying to bring them as close as possible to the 400Hz reference reading.

NOTE

Setting of VR101/102 should be done in forward mode, at 7-1/2ips. Do not adjust in reverse mode or at 3-3/4ips.

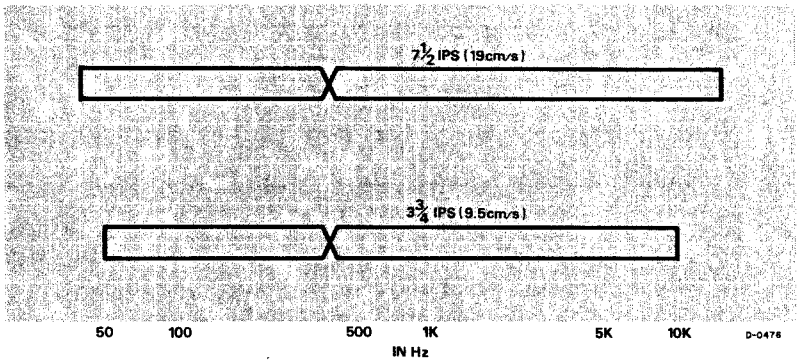



Fig. 7-4 Frequency Response Limits -Playback-

## LEVEL VARIATION

16. With a level meter connected to the LINE OUT jacks and using the TEAC test tape the readings listed below should be obtained at the specified frequency and tape speed.

| | |
|---|---|
| 7-1/2ips: | 0.5dB at 400Hz |
| | 1.0dB at 15kHz |
| 3-3/4ips: | 1.0dB at 10kHz |

## SIGNAL TO NOISE RATIO

**IMPORTANT**

Output control should be at specified output level.
The signal to noise ratio must meet factory standards.
The values given are obtained using an unweighted level meter while the supply and take up motors are running.
The values are with reference to a 3% THD level.

1. Thread a tape on the unit, leaving the tape outside the capstan and pinch roller.
2. Place the unit in the PLAY mode ( ▷ ) (the tape will not move).
3. The level meter connected to the LINE OUT jacks should indicate 58dB or less.
4. This corresponds to a signal to noise ratio of 50dB (difference between residual noise -58dB and specified output level -8dB for 1% THD).
   For a 3% THD signal to noise ratio, 6dB is added, giving 56dB (3% THD is 6dB above 1% THD level).

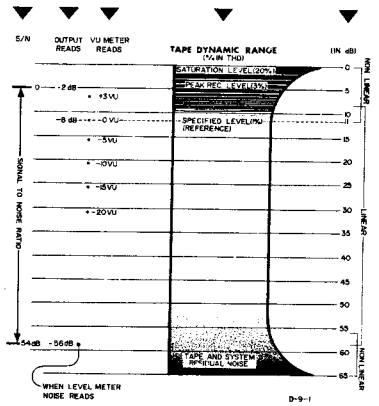



Fig. 7-5 Signal/Noise Computation

## MONITOR PERFORMANCE

### MINIMUM INPUT LEVEL ADJUSTMENT

LINE Input

1. Connect an AF oscillator to the LINE IN jacks.
2. Apply a 400Hz signal at -18dB.
3. Place the MONITOR switch in the SOURCE position and turn the LINE controls fully clockwise.
4. Adjust VR105/205 to obtain a specified output level of -8dB at LINE OUT jacks.

MIC Input

5. After adjusting VR105/205, apply a 400Hz signal at -70dB to the MIC IN jacks.
6. Rotate the MIC controls fully clockwise.
7. The output should be -8dB(specified output level).

> **NOTE**
>
> Mic input requires no adjustment, only an operational check. After completing the check rotate mic controls fully counter-clockwise to eliminate noise from mic jacks or mic preamplifiers.

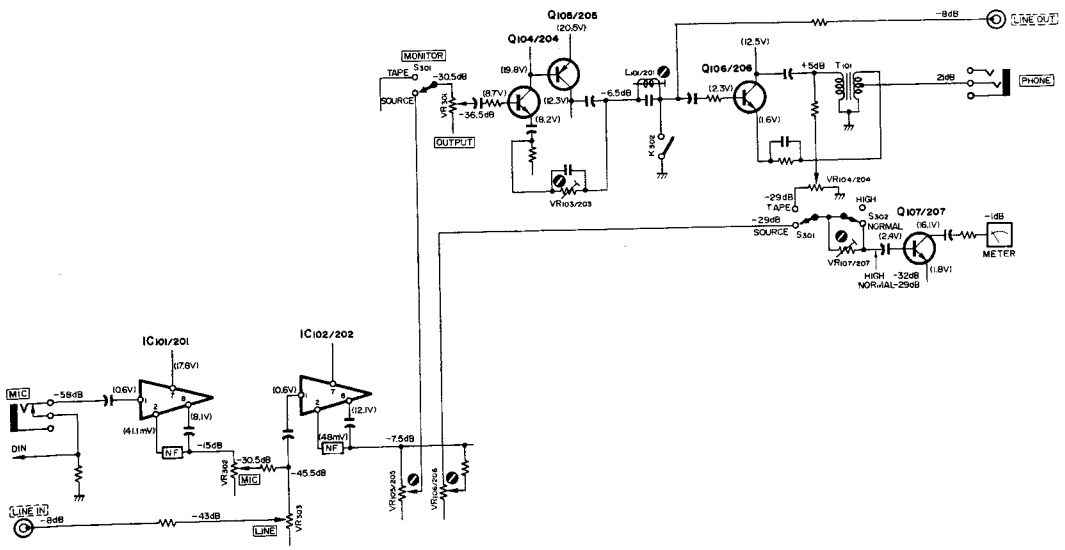



Fig. 7-6 Simplified Diagram -Monitor-

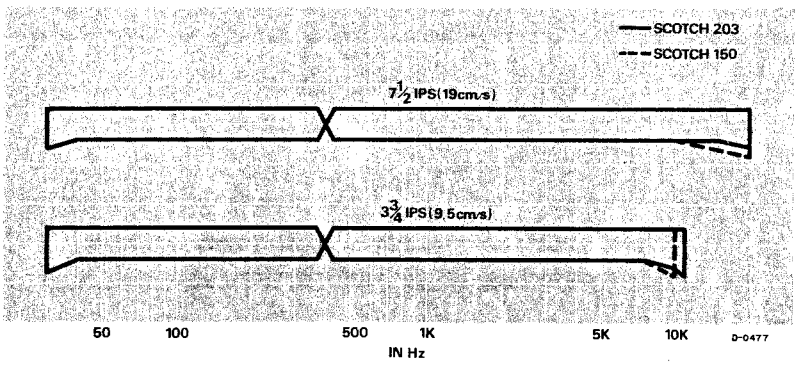
## SPECIFIED INPUT LEVEL SET

8. Apply a 400Hz signal at -8dB to the LINE IN jacks.
9. Adjust the LINE controls with reference marks aligned for -8dB at the LINE OUT jacks.

> NOTE
>
> Do not disturb the specified input level position of these controls until the remaining checks and adjustments are completed.
>
> The difference between the channels must not exceed 2dB as indicated on the level meter. If it is not within limits, check the amplifier gain, the LINE controls reference marks should be together.

## VU METER CALIBRATION -RECORD-

10. With the same 400Hz signal at -8dB applied and the MONITOR switch in SOURCE, adjust VR106/206 for 0 VU on the VU meters.




Frequency Response Limites -Record-

## RECORD PERFORMANCE

IMPORTANT

Before making any adjustments on the record amplifier, be sure that all tests in the HEAD ALIGNMENT, PLAYBACK and MONITOR PERFORMANCE sections have been accomplished and that all adjustments are correct.
Optimum recording performance (Bias levels, recording levels and frequency response) is dependent upon tape characteristics. The TEAC A-6010SL is factory set for Scotch type 203 tape.
Service data is based upon the use of Scotch 203 or equivalent tape.

NOTE

The bias trap tank circuit keeps the bias signal from reaching the record and monitor amplifier and under normal no signal conditions, voltage should not be present at the LINE OUT jacks.

### BIAS TRAP ADJUSTMENT

1. Thread a blank tape or block tension arm in on position.
2. Place the mode L·R switches up.
3. Place the bias switch to HIGH and place the unit in the RECORD mode. Place the RECORD LEVEL switch in the NORMAL position.
4. Connect a VTVM to the junction of L103, R145.
5. Adjust L103 for a minimum reading.
6. Connect the VTVM to the junction of L203, R245. Adjust L203 for a minimum reading.
7. ADjust L101, L201 for a minimum reading at LINE OUT jacks.

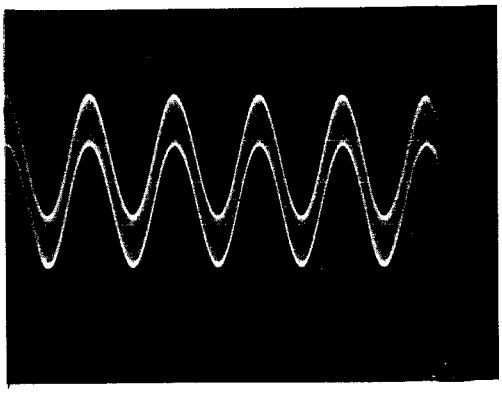


Fig. 7-7 Bias Leakage

### BIAS ADJUSTMENT

NOTE

These adjustment are only made at 7-1/2ips tape speed, The bias oscillator frequency is 100kHz(±10kHz).

HIGH position

1. Thread record test tape Scotch 203 on the unit.
2. Place the bias switch to HIGH and place the unit in the record mode. Place the MONITOR switch in the TAPE position, LEVEL switch to NORMAL.
3. Adjust capacitor VC102/202 for a peak on the level meter.
4. Turn the capacitors clockwise until a decrease of 0.5dB is obtained.

NORMAL position

5. Thread record test tape Scotch 150 on the unit.
6. Place the bias switch to NORMAL and place the unit in the record mode.
7. Adjust capacitor VC101 and VC201 for a peak on the level meter. Turn the capacitors clockwise until a decrease of 0.5dB is obtained.

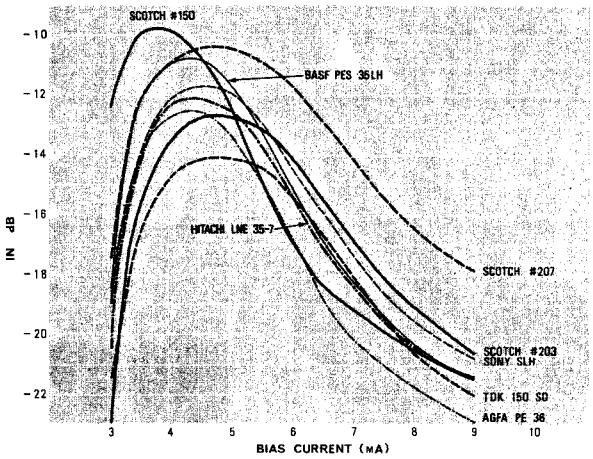



Fig. 7-8 Bias Current Characteristic

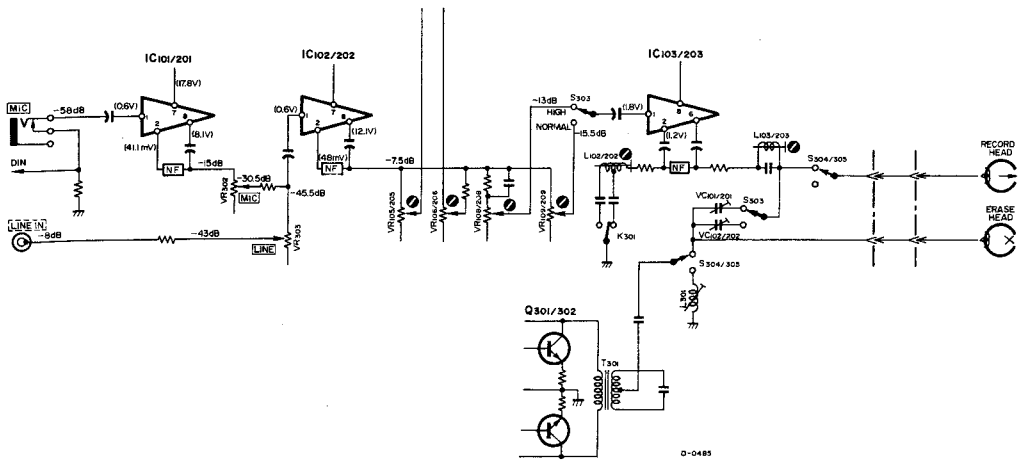



Fig. 7-9 Simplified Diagram -Record-

## RECORD HEAD AZIMUTH ADJUSTMENT

### Coarse Adjustment

> **NOTE**
>
> The effect of turning the azimuth screw will not immediately register on the level meter. A slight delay will be noticed. Therefore, the screw must be rotated slightly, and then pause to see the effect.

1. Connect a Level Meter to the LINE OUT jacks and an AF oscillator to the LINE IN jacks.
2. Place the MONITOR switch to SOURCE and adjust the AF oscillator to obtain a signal of 15dB below the specified output level. (The level meter will indicate -23dB.)
3. Make certain that the LINE control is at the specified input level position, then set the AF oscillator to 10kHz.
4. Thread a record test tape on the unit and place the mode L·R switches up.
5. Place the MONITOR switch in the TAPE position.
6. Adjust the azimuth screw for maximum indication of the level meter.

### Fine Adjustment

> **NOTE**
>
> It is absolutely essential to accomplish the coarse adjustment before using this method, to avoid phase error larger than 45°

7. Connect the test equipment as shown in Fig. 7-10
8. Apply a 7.5kHz signal at -23dB to the LINE IN jacks and record this signal.
9. Carefully adjust the azimuth screw until the oscilloscope shows the signal to be in phase.
10. Secure the screw with a drop of LOCTITE.

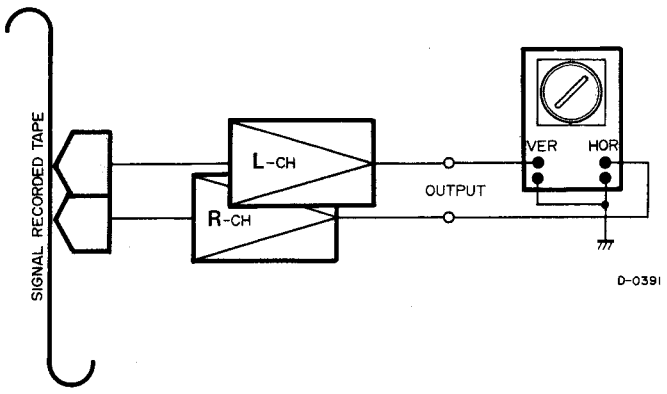



Fig. 7-10 Fine Adjustment Set-Up -Head Azimuth-

## RECORD LEVEL SET

1. The OUTPUT controls must be at the specified output level position (-8dB at LINE OUT jacks).
2. Apply a 500Hz signal at -8dB to the LINE IN jacks.
3. Thread record test tape Scotch 203 on the unit, then set the BIAS switch to HIGH position.
4. Place the unit in the stereo record mode with the MONITOR switch in the TAPE position.
5. Adjust VR109/209 for a reading of 0 VU on the VU meters (-8dB at the LINE OUT jacks).

NOTE

Adjustment of REC level VR109/209 or VU meter VR108/208 calibration will interact, after adjusting VR109/209, recheck VR108/208 to ascertain that it is still correct.
Set LEVEL switch to HIGH if using low noise/high output tape and to NORMAL if using conventional tape.
The OUTPUT/LINE controls must be at the specified position.

## OVERALL FREQUENCY RESPONSE

IMPORTANT

To avoid saturation of the tape, these checks should be made at least 15dB below the specified input level.
Any bias signal feeding into the test equipment should be filtered out by adjusting the external bias trap. A broad band VTVM may be used on the output of the unit for this adjustment.

1. Adjust the AF-oscillator to obtain an output level of -23dB(approx. 15dB below specified output level) at LINE OUT jacks.
2. Place BIAS switch in HIGH position, thread Scotch 203 tape on machine.
3. Apply a signal swept from 50Hz to 15kHz and record it on the test tape.
4. Repeat the above procedure for 3-3/4ips using a signal swept from 50Hz to 7.5kHz. Refer to for response limits.

   Since response of TEAC M-826 falls off sharply above 20kHz the extra bias trap is not required.

No adjustment is given for this procedure.

5. Thread the Scotch 150 tape on the unit.
6. Place the BIAS switch in the NORMAL position.
7. Repeat the overall response check at both tape speeds.
8. The record equalization should give the proper frequency response.

NOTE

If adjustment is required, adjust L102/202. These coils are in use for both tape speeds and should be adjusted at 7-1/2ips.
If the coil adjustments do not help, then change the value of C140/240 for 7-1/2ips and C141/241 for 3-3/4ips. Adjust this circuit for most even LEVEL VU meter readings, trying to bring them as close as possible to the 400Hz reference reading.

## OVERALL SIGNAL TO NOISE RATIO

IMPORTANT

Clean and demagnetize the heads before proceeding. It is extremely important that all tests described in the proceeding paragraphs have been completed and that all controls adjusted are left unalterd.

1. Thread a record test tape(Scotch 203) on the unit.
2. Remove the AF oscillator from the LINE IN jacks.
3. Place the unit in the RECORD mode with no signal applied.

NOTE

Noise readings, when taken while recording, may be affected by the bias signal which could be leakings through. It is therefore good practice to rewind the no signal recorded section and take the noise reading during playback.

4. Note the point on the index counter where recording begins.
5. Rewind the tape and play it back.
6. The noise level as indicated on the level meter should be -56dB

NOTE

Bias, erase and playback amplifier noise are all included in this measurement.
All frequencies between 40Hz and 15kHz are measured unweighted.

## LEVEL VARIATION

A LEVEL METER connected to the LINE OUT jack should be indicate the readings listed below at the specified frequency and tape speed using Scotch 203 as the test tape.

| | | |
|---|---|---|
| 7-1/2ips: | 0.5dB | at 400Hz |
| | 1.5dB | at 15kHz |
| 3-3/4ips: | 2dB | at 10kHz |

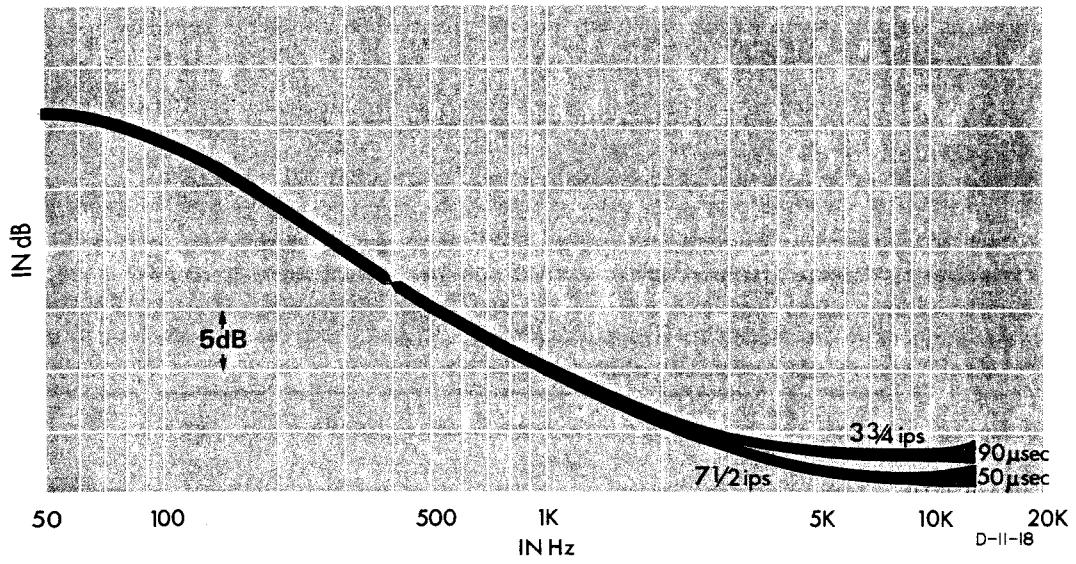
## ERASE EFFICIENCY

NOTE

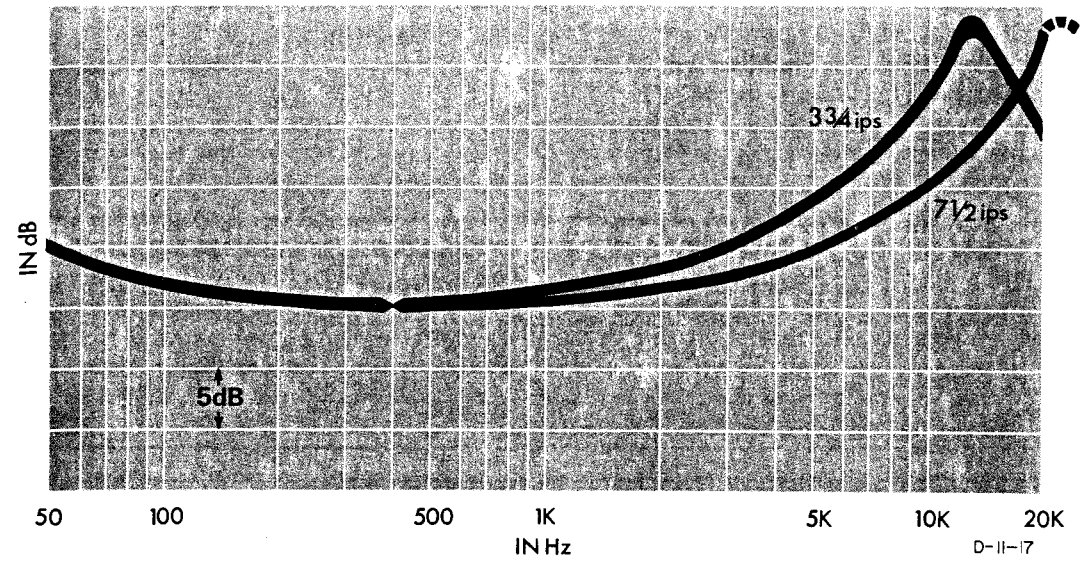
To measure erase efficiency, a 1kHz band pass filter (TEAC M204 CL filter) must be used.

Due to the high level of this signal, it is recommended that only a short recording be made (approximately 30 seconds) to prevent damage to the VU meter.

1. Apply a 1kHz signal at 0dB to the LINE IN jacks.
2. Place the unit in record mode and record this signal.
3. Rewind the recording to the beginning and remove the AF oscillator from the LINE IN jacks.
4. Place the unit in record mode and record over this portion of tape again.
5. Rewind the tape to the starting point and connect a level meter to the LINE OUT jack through the 1kHz band pass filter.
6. Play the erased portion of the tape.
7. The level meter should indicate -73dB or more.




PLAYBACK EQUALIZATION CURVES




RECORD EQUALIZATION CURVES

Fig. 7-11 Typical Response Curve

# 8 PREVENTIVE MAINTENANCE

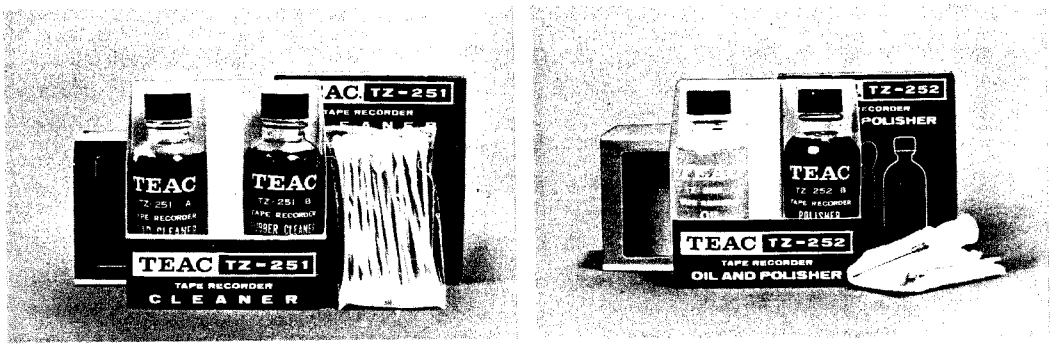



Fig. 8-1 Maintenance Equipment

## CLEANING

When excess oxide accumulates on the surface of components where tape passes, normal operation and characteristics cannot be expected. Periodic cleaning should be done with proper cleaning materials. Refer to Operating Instructions.

## DEMAGNETIZATION

Metal parts in contact with the tape will become magnetized after long periods of use (except erase head). Magnetization of record/playback heads causes noise in recording and reproduction and should be demagnetized at every 50 hours of use, and before any important recording is done. Refer to Operating Instructions.

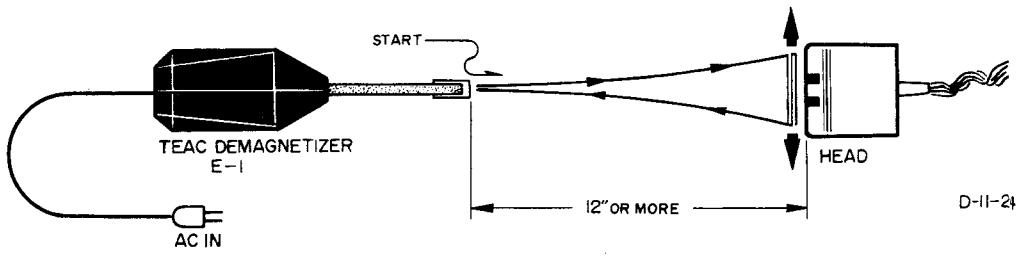



Fig. 8-2 Demagnetization

## LUBRICATION

Under normal conditions the unit will not require lubrication. Most of the bearings and bushings are of the oilless type. Since there are many rubber parts in the transport mechanism, excessive or improper lubrication could cause problems. If lubrication is required, the following points should be lubricated:

Capstan bearing, pinch roller shaft.....1 drop
Motor.....1 - 2 drops in the plastic tube

Parts to be lubricated should be cleaned and old oil and dirt removed before relubricating. Observe instructions as to type of oil, points to be lubricated and amount of lubrication required.

Motors should be lubricated immediately after use while still warm. After oiling motors keep the unit in the horizontal position for 2 – 3 hours to allow thorough absorption of oil.

## VENTILATION

During use the face plate of the A-6010SL may become quite warm to the touch, this is entirely normal.
As long as the air vents in the rear plate are unobstructed, the unit will not overheat.
However, if the unit is placed snugly against a wall, or free air passage is prevented, overheating and possible damage may occur.

# 9 TROUBLE SHOOTING

NOTE

About 50% of the units that are returned for repair do not function properly due to poor connections, dirty heads, poor tape, or improper operation.
Therefore, read your operating instructions and take a minute to carefully check the machine yourself before shipping it back for repair.
The following guide lists specific difficulties that could occur in the A-6010SL.
Several possible causes are listed for each malfunction.
Visually inspect the unit for any damage such as broken or burned components or wiring, loose connections, etc.

| MALFUNCTION | POSSIBLE SOURCE OF TROUBLE | CORRECTIVE PROCEDURE |
|---|---|---|
| Capstan fails to turn | Belt off or slipping, line fuse (F-2), auto-shutoff switch(S-13), phase advance capacitor (C-3), reverse play relay (K-6), speed select switch (S-3). | Refer to schematic diagram and repair or replace the defective components. |
| Pinch roller fails to contact capstan in play mode | AC voltage selector switch (S-17), position, remote control jumper plug not installed or loose, stop switch(S-17), reverse play relay(K-6), switch(S-16), delay relay(K-2), fast relay(K-3), capstan solenoid. | The normal DC resistance of the capstan solenoid is 1.3k ohms. Refer to schematic diagram and repair or replace the defective components. |
| Right reel does not rotate in the play mode | Delay relay(K-2), reverse play relay (K-6), resistor (R-3), fast relay(K-3), capacitor(C-4). | Refer to schematic diagram and repair or replace the defective components. |
| Left reel does not rotate in play mode | Delay relay(K-2), reverse play relay(K-6), resistor (R-4), fast relay (K-3), capacitor (C-5) | Refer to schematic diagram and repair or replace the defective components. |
| Left reel operates with low torque | Resistor(R-4), tension switch(S-2) | Repair or replace defective components. |
| Both reel motors fail to operate | Operating relay(K-1) | Clean contacts on (K-1) or replace relay. |
| Recorder does not operate in forward play | Remote control jumper plug missing or loose, reverse play(K-6), switch(S-8), signal record switch(S-5), operate relay(K-1), brake solenoid(L-1) | Normal DC resistance of the brake solenoid is 1.3k ohms. Refer to schematic diagram and repair or replace the defective components. |

| MALFUNCTION | POSSIBLE SOURCE OF TROUBLE | CORRECTIVE PROCEDURE |
|---|---|---|
| Recorder does not operate in reverse play | Remote control jumper plug missing or loose, stop switch(S-9), switch(S-14), resistor(R-8), reverse relay(K-5) | Refer to schematic diagram and repair or replace the defective components. |
| Pinch roller 4 second delay faulty | Reverse relay(K-5), resistor(R-10), capacitor(C-8), delay relay(K-2) | Refer to schematic diagram and repair or replace the defective components. |
| Fast forward or rewind mode inoperative | Reverse relay(K-5), fast relay(K-3) | Refer to schematic diagram and repair or replace the defective components. |
| No record and/or no erase | Record head dirty, erase head dirty, operate relay (K-1), Auto Reverse switch (S-4) in "ON" Position, record switch(S-8), record relay(K-7), record amplifier, bias oscillator, record head, erase head. | Refer to schematic diagram and repair or replace the defective components. For record amplifier troubleshooting refer to voltage chart. |
| No playback | Playback head dirty, amplifier to deck connections, monitor switch(S-301), playback amplifier | Refer to playback amplifier voltage chart. |
| Auto-reverse does not function with sensing foil | Foil length too short, sensing post dirty. | Foil should be 1/2" long. Clean sensing post. |
| Auto-reverse does not function with PSS signal | Defective(old) tape, signal too short in duration, record head dirty, switch(S-4), switch(S-5), resistor(R-13), capacitor(C-9), resistor (R-12), autoreverse amplifier faulty | Repair or replace defective components. The autoreverse signal duration should be 1 to 2 seconds. |

| MALFUNCTION | POSSIBLE SOURCE OF TROUBLE | CORRECTIVE PROCEDURE |
|---|---|---|
| Repeat operation faulty | Foil length too short, sensing post dirty, repeat switch (S-7) not on or faulty, repeat unit faulty. | There is a built-in 40-second recycling period for the repeat unit. It will not operate if a repeat cycle of less than 40 seconds is required. |
| Playback noise or hum | Faulty connections, head selector relay (K-8), faulty playback head. Faulty Playback Amplifier. | Repair or replace defective components. |
| Noise or hum during record | Magnetized head, faulty connections, Mic level set to maximum, switch (S-5), switch (S-4), record relay (K-7), faulty head. Faulty Record Amplifier. | Demagnetize and clean head, repair or replace defective components. |
| Wow & flutter | Defective tape, dirty or defective pinch roller, oily or defective belt, reel motor tension. | Clean or replace defective components. Adjust motor tension. |
| Incorrect tape speed | 50/60Hz cycle change knob in wrong position. Incorrect pinch roller pressure. | Reset cycle change knob. Adjust pinch roller pressure. |
| Brakes do not release | Defective brake solenoid | The D.C. resistance of the brake solenoid should be 1.6k ohms. Replace solenoid. |

PHASE SENSING SYSTEM:

The phase sensing reverse utilizes a separate amplifier located on the bottom of the A-6010SL transport section.
When the SIGNAL RECORD and( ▷ )buttons are depressed, the AC line frequency(50 or 60Hz) signal is recorded on the tape at a level of approximately +10 - 11dB. This signal, however, is recorded out of phase between the left and right channels since one of the record head poles is electrically reversed during this mode. During playback with the AUTO REVERSE ON, the record heads act as the sensing device and are connected out of phase as they were during the recording of the reversing signal.
Because the heads are now out of phase in respect to the normal audio signals they generate very little or no output since the signals tend to cancel each other out. However, when the previously recorded, out of phase, reversing signal reaches the recording head it is now in phase in respect to the record head and generates a signal which is amplified, rectified and utilized to energize the reverse relay.
It is feasible that a strong signal with no counterpart on the other channel to cancel it out could cause the recorder to reverse. However, proper adjustment of the reversing amplifier sensitivity control will eliminate this possibility.
It must be understood that the reversing signal is recorded at such a high level that normal signals do not approach this level.

Phase Sensing System Adjustments:

1. Thread a blank tape (THIN tape) on the recorder and set MONITOR switch to TAPE.
2. Place the MODE L·R switches in the UP position.
3. Place the AUTO REVERSE switch in the ON position.
   Depress the SIGNAL RECORD and the ( ▷ ) button for approximately
4. 2 seconds.
5. Rewind the tape to the start of the recorded signal and press the ( ▷ ) button.
6. Adjust VR-1 until the recorder stops and reverses. (see below.)
7. Rewind the tape once more and check to see if the recorder stops and reverses, then increase the sensitivity of VR-1 slightly.

NOTE

If the use of THIN tape is not anticipated, the above adjustments can be made with REGULAR tape.

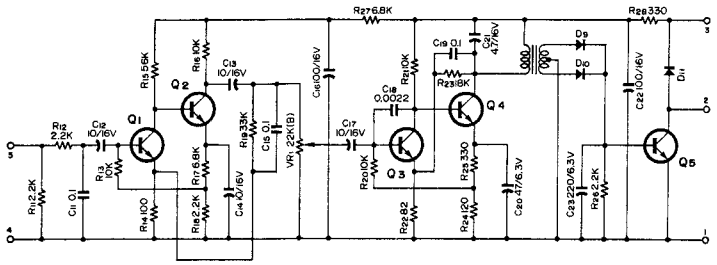



Fig. 10-1 P.S Reverse Amplifier Schematic Diagram

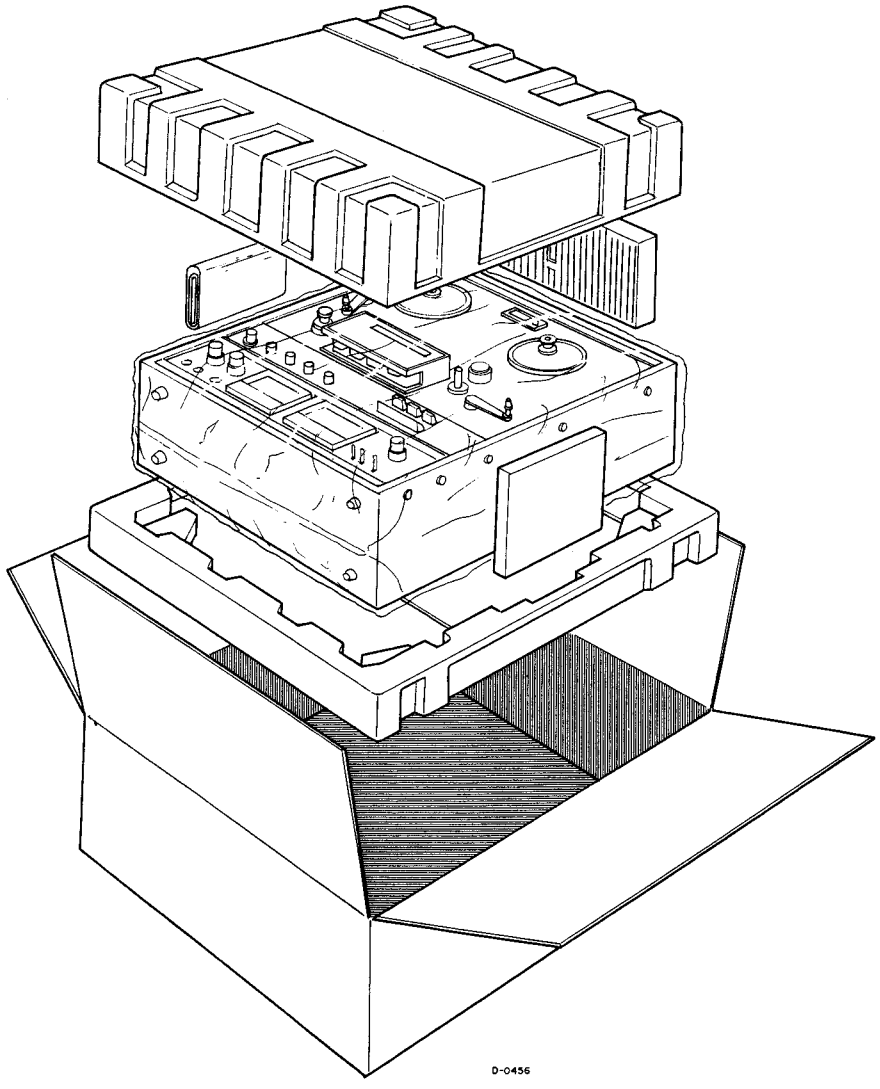
# 10 WARRANTY

Your TEAC equipment has been manufactured under strictest quality control. Its normal operation is under warranty. However, warranty terms may vary with the country(area) in which it was purchased and for different models of equipment.
The warranty terms are fully described in the enclosed warranty card. Please read the card for complete details.

# 11 PACKING FOR SHIPMENT

SHIPPING INSTRUCTIONS

If the unit is to be sent back to the TEAC factory (service department) for repair, carefully pack as shown below.



# CHANGES ADDED

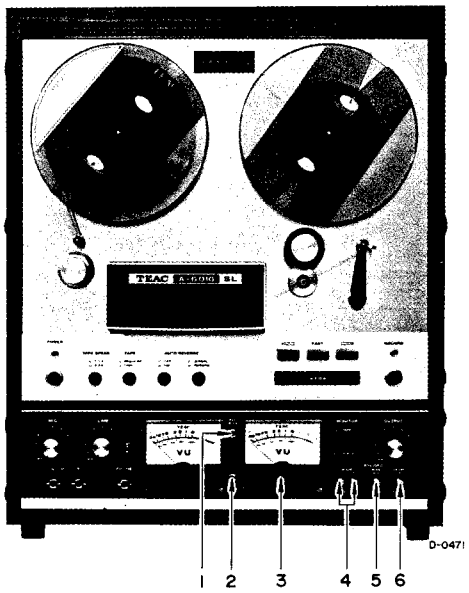
The following features are added to the new A-6010SL.
The other controls are the same as on A-6010.

-REC BIAS-

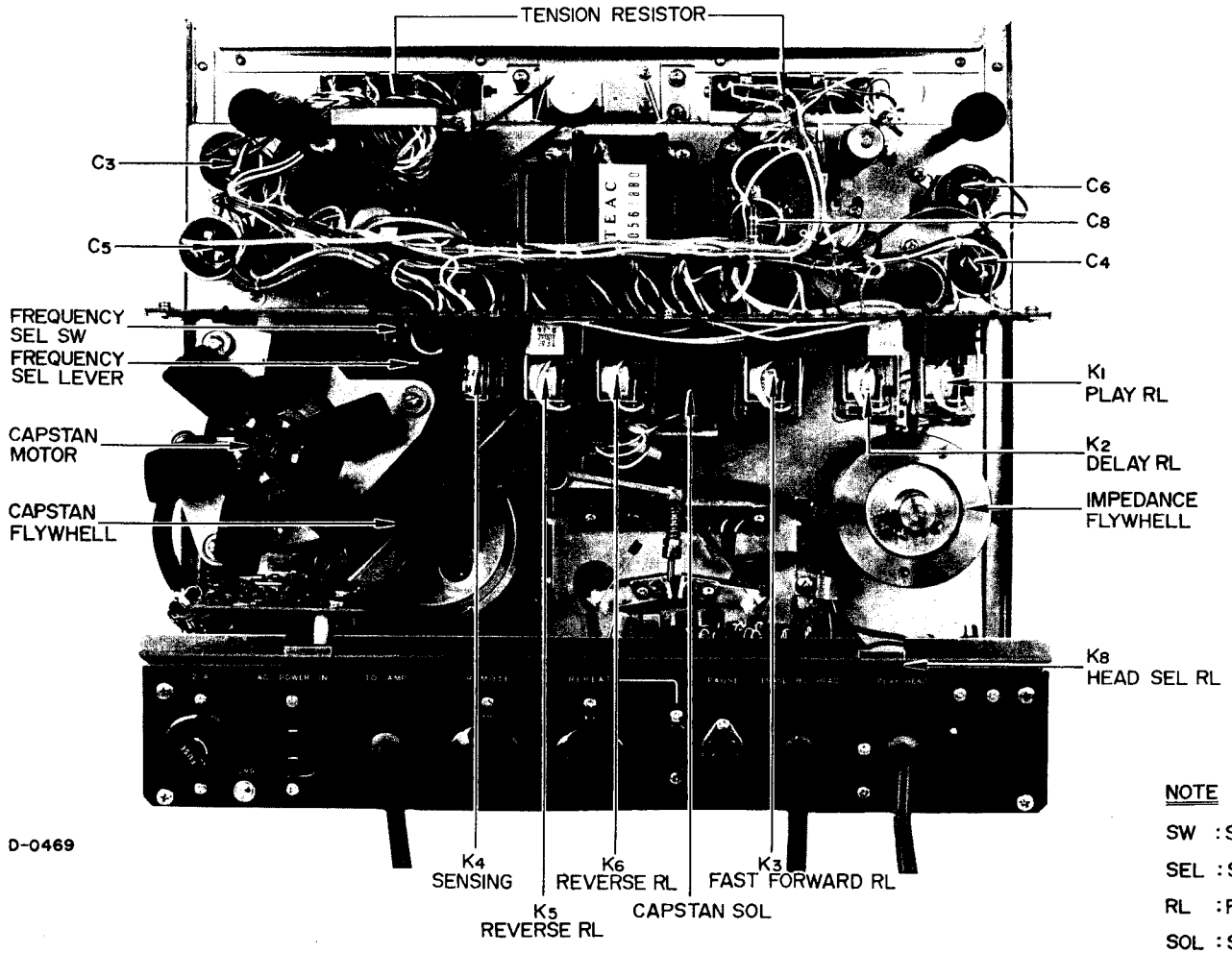
1. Bias level indicator lamp: Glows red when high position is selected with record BIAS switch.

-REC LEVEL-

2. Meter level indicator lamp: Glows violet when high position is selected with meter LEVEL switch.
3. VU meter cover is black.
4. Record channel selector switches(MODE L·R). Selects channel or channels to be recorded.
5. Record bias switch(BIAS): Selects proper bias signal level for type tape being recorded.
   HIGH position; is for use with HIGH output/low noise tape, such as Scotch 203 or BASF LP-35LH.
   NORMAL position; is for use with conventional tapes, such as Scotch 150.
6. Meter level switch(LEVEL):
   HIGH position; expands the VU meter scale for recording or playback of high performance tapes, such as Scotch 203 or BASF LP-35LH.
   NORMAL position; for use when recording or playing back conventional tapes, such as Scotch 150.



# TAPE TRANSPORT PARTS LOCATION



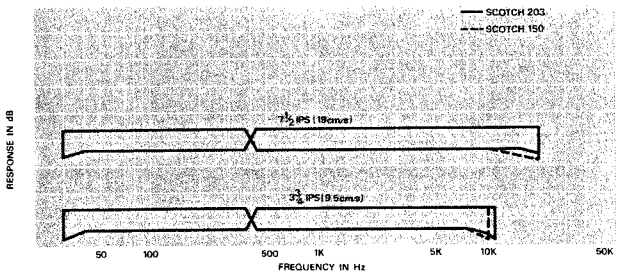

NOTE

SW : SWITCH
SEL : SELECT
RL : RELAY
SOL : SOLENOID

— REAR —

# ADDENDUM CHANGE SHEET

Chart below applies to "Overall Frequency Response" section step 4.




Frequency Response Limit Chart

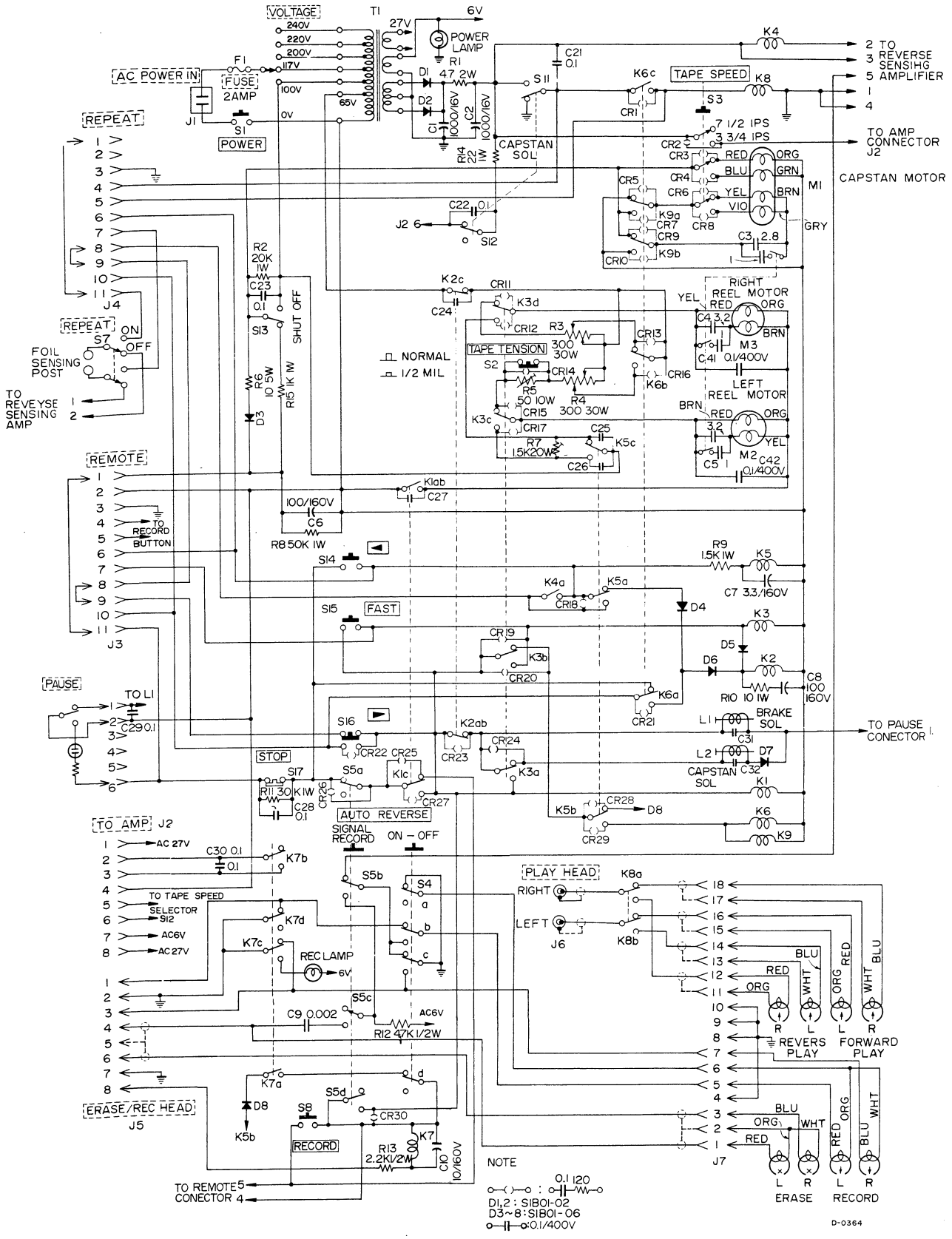
Change last sentence in step 4 to read "Refer to Frequency Response Limit Chart for response limits".

# 12 SCHEMATIC DIAGRAM

SCHEMATIC DIAGRAM

A-6010SL

# TAPE TRANSPORT

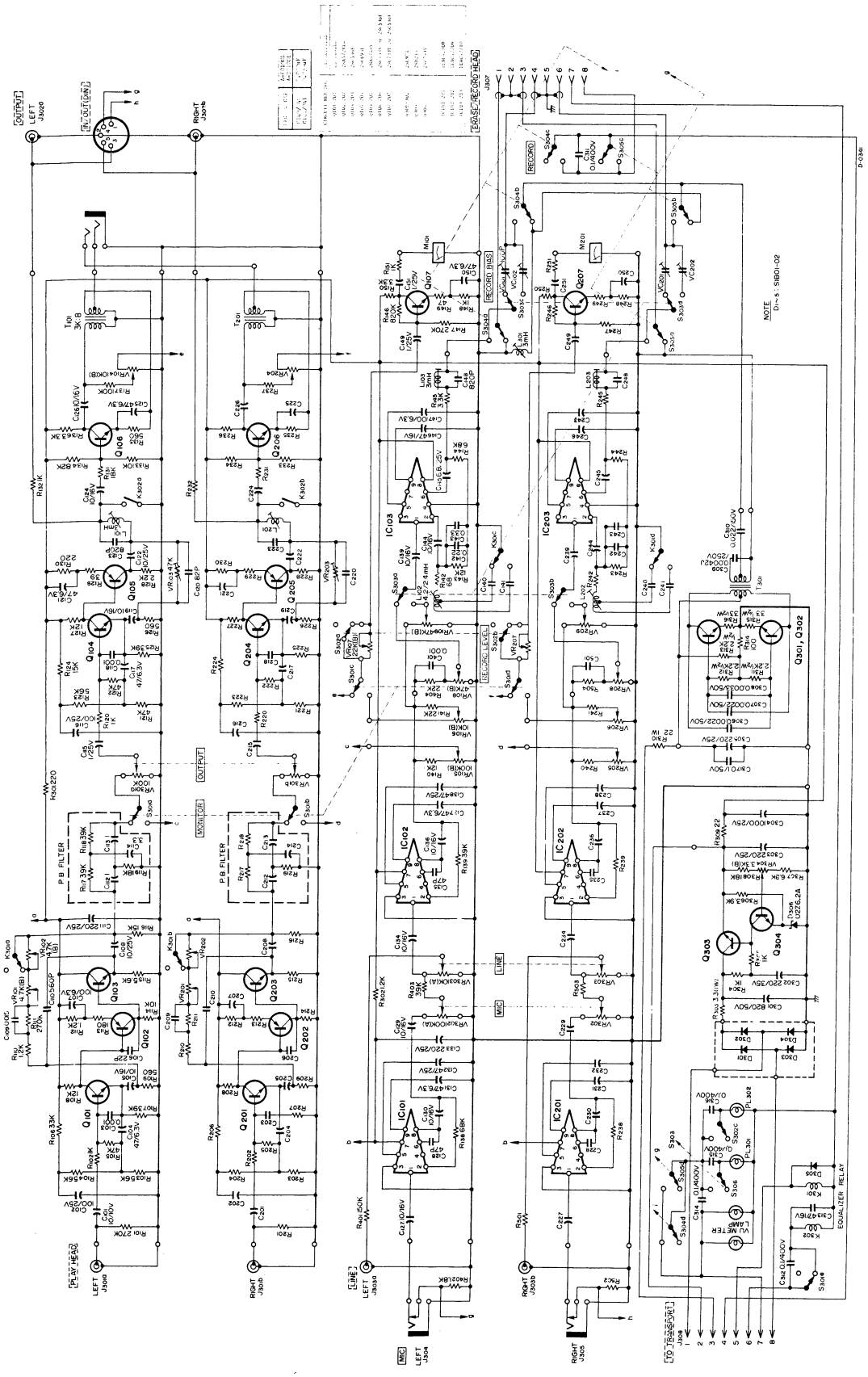



Specifications and components subject to change without notice.

SCHEMATIC DIAGRAM

A 6010SL

# PREAMPLIFIER



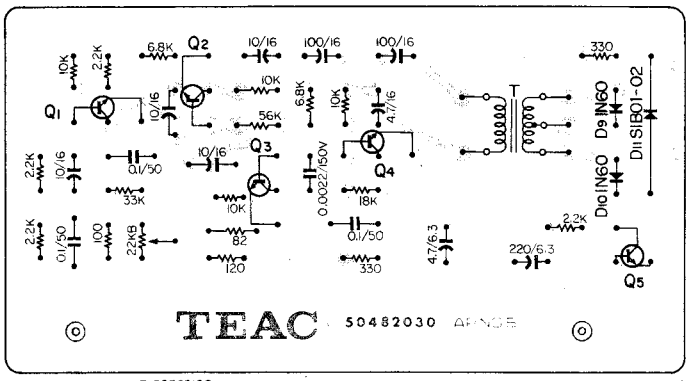
# 13 PRINTED CIRCUIT BOARD AND PARTS LIST

*FOR* **MODEL**

PC BOARD AND PARTS LIST

A-6010SL

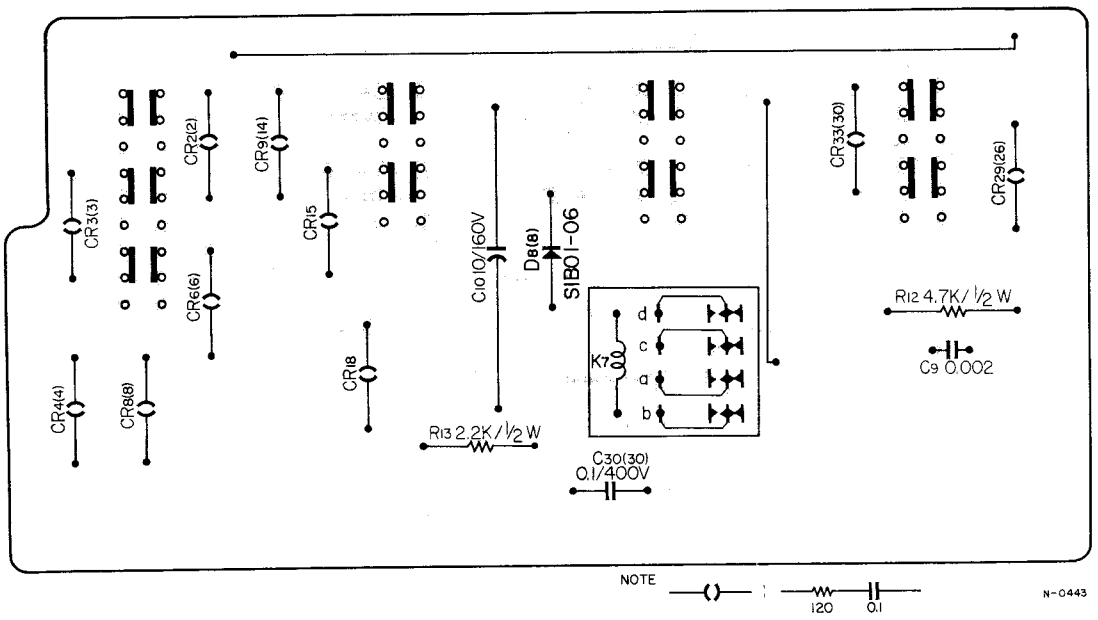
# AUTO REVERSE AMPLIFIER (P.S. AMP)




Q1~Q4: 2SC733-Y, Q5: 2SC971 T: 50562100 N-0440

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND | 3RD |
|---|---|---|---|---|---|
| 2-49-1 | 50489280 | PC Board Assy, Auto Reverse Amp | | | |
| | 50482030 | PC Board, Auto Reverse Amp | | | |
| | 50442560 | Diode, S1B01-02 | | | |
| | 50422130 | Diode, (or IN-60), x 2 | | | |
| | 50562100 | Transformer, Output | | | |
| | | SILICON TRANSISTORS | | | |
| Q1 | 50423300 | 2SC693F or | | | |
| | 50423510 | 2SC733(Y) | | | |
| Q2-Q4 | 50423830 | 2SC536F or | | | |
| | 50423510 | 2SC733(Y) | | | |
| Q5 | 50423850 | 2SC971 | | | |
| | | CARBON RESISTORS | | | |
| | 50515380 | 2.2k ohm 1/4W, x 4 | | | |
| | 50515490 | 10k ohm 1/4W, x 4 | | | |
| | 50515640 | 100 ohm 1/4W | | | |
| | 50515610 | 56k ohm 1/4W | | | |
| | 50515470 | 6.8k ohm 1/4W, x 2 | | | |
| | 50515570 | 33k ohm 1/4W | | | |
| | 50515630 | 82 ohm 1/4W | | | |
| | 50515520 | 18k ohm 1/4W | | | |
| | 50515280 | 330 ohm 1/4W, x 2 | | | |
| | 50515230 | 120 ohm 1/4W | | | |
| | | TRIMMER RESISTOR | | | |
| | 50533560 | 22k ohm (B) | | | |
| | | CAPACITORS | | | |
| | 50554330 | Elec. 220uF 6.3V | | | |
| | 50554200 | Elec. 100uF 16V | | | |
| | 50554030 | Elec. 47uF 6.3V | | | |
| | 50554050 | Elec. 10uF 16V | | | |
| | 50548040 | Mylar 0.1uF 50V | | | |
| | 50548220 | Mylar 0.0022uF 150V | | | |
| | 50546170 | Tantalum 4.7uF 16V | | | |

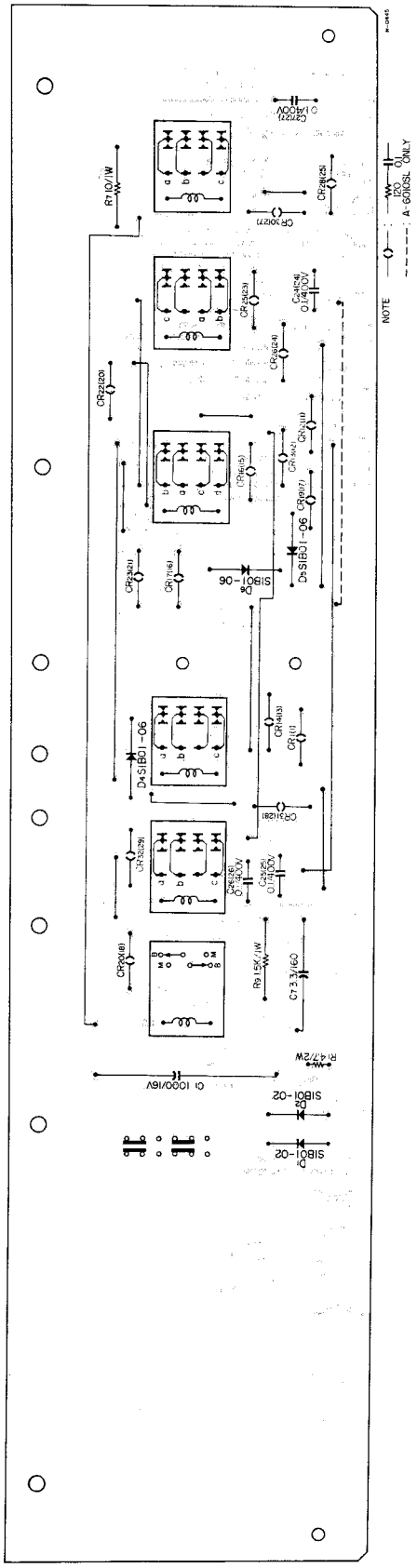
# RECORD RELAY ASSY




| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 4-4-1 | 50489270 | PC Board Assy, Record Relay | | |
| | 50481990 | PC Board, Record Relay | | |
| | 50443670 | Push SW Assy | | |
| | 50610430 | Relay, KGS K6-4P 100V | | |
| | 50555450 | Cap., Elec. 10uF 160V | | |
| | 50548390 | Cap., Metalized Mylar 0.1uF 400V | | |
| | 50548170 | Cap., Mylar 0.0022uF 150V | | |
| | 50516380 | Resistor, Carbon 2.2k 1/2W | | |
| | 50516440 | Resistor, Carbon 4.7k 1/2W | | |
| | 50442570 | Diode, S1B01-06 | | |
| | 50529050 | Spark Killer 0.1uF + 120 ohm, x 8 | | |

PC BOARD
A-6010SL

# CONTROL RELAY ASSY

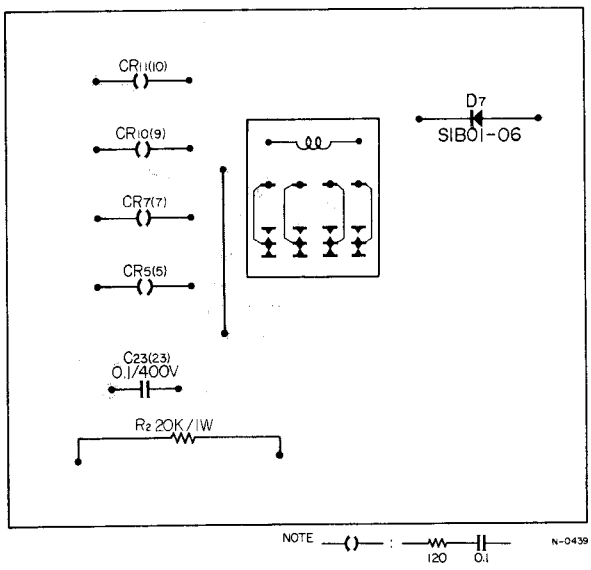


# CONTROL RELAY ASSY

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 5-4-1 | 50489330 | PC Board Assy, Control Relay | | |
| | 50482040 | PC Board, Control Relay | | |
| | 50610770 | Relay, DC 100V RL-MY4PY1-0, x 5 | | |
| | 50610780 | Relay, DC 12V MH2ZPM1-0 | | |
| | 50548390 | Cap., Metalized Mylar 0.1uF/400V, x 5 | | |
| | 50555360 | Cap., Elec. 3.3uF/160V | | |
| | 50529050 | Spark Killer, 0.1uF + 120 ohm, x 16 | | |
| | 50525100 | Resistor, Wire Wound 10 ohm 1W | | |
| | 50525920 | Resistor, Wire Wound 4.7 ohm 1W | | |
| | 50527010 | Resistor, 1.5k ohm 1W | | |
| | 50422570 | Diode, S1B01-06, x 3 | | |
| D2·D3 | 50422560 | Diode, S1B01-02, x 2 | | |

# NOISE SUPPRESSION ASSY

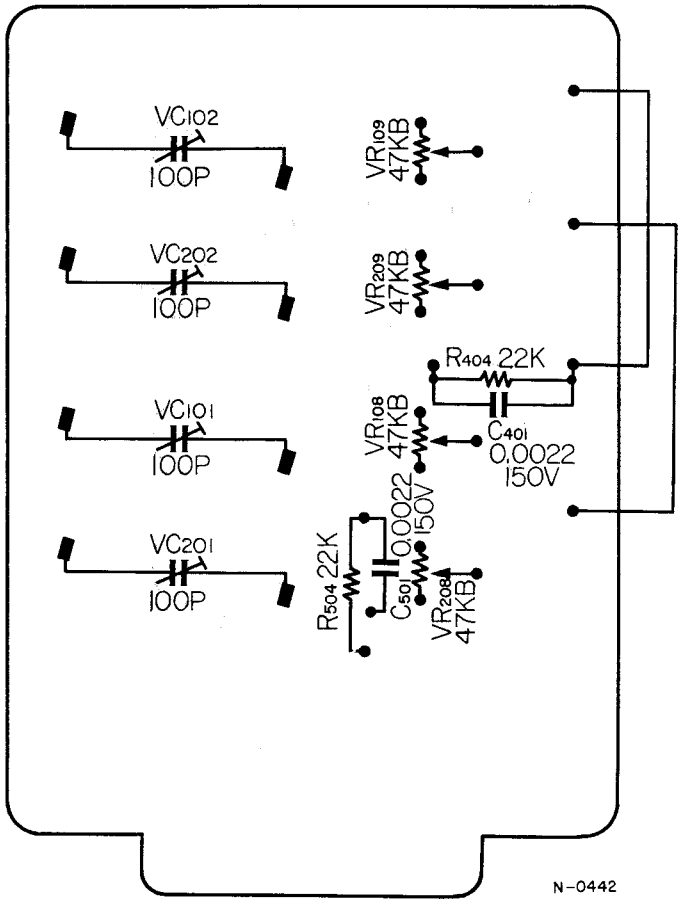
## SPARK KILLER ASSY




| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 4-38-1 | 50489220 | PC Board Assy, Noise Suppression | | |
| | 50482860 | PC Board, Noise Suppression | | |
| | 50548390 | Cap., Metalized Mylar 0.1uF 400V | | |
| | 50526220 | Resistor, Carbon 20k ohm 1W | | |
| | 50529050 | Spark Killer 0.1uF + 120 ohm, x 4 | | |
| | 50422570 | Diode, S1B01-06 | | |
| | 50610770 | Relay, Miniature DC 100V | | |

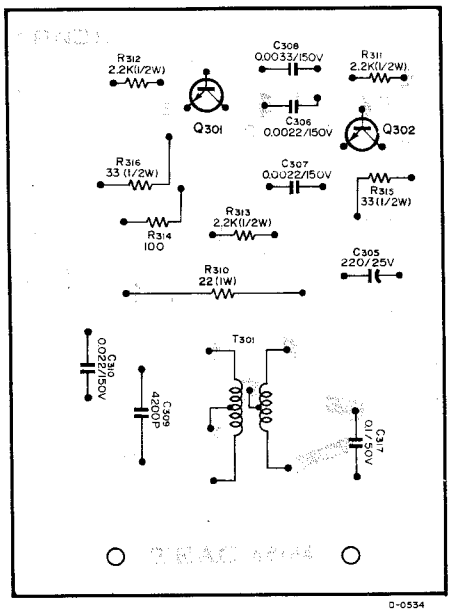
PC BOARD AND PARTS LIST
A-6010SL

# BIAS ADJUST ASSY




| CIRCUIT REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 6-9 | 50489320 | PC Board Assy, Bias Adjust | | |
| | 50481980 | PC Board, Bias Adjust | | |
| VR108/208 | 50533520 | Trimmer Resistor 47k B | | |
| VR109/209 | 50533520 | Trimmer Resistor 47k B | | |
| VC101/201 | 50547040 | Trimmer Capacitor 100pF | | |
| VC102/202 | 50547040 | Trimmer Capacitor 100pF | | |
| C401/501 | 50548820 | Cap., Mylar 0.001uF/150V | | |
| R404/504 | 50517100 | Resistor, Carbon 22k 1/8W | | |

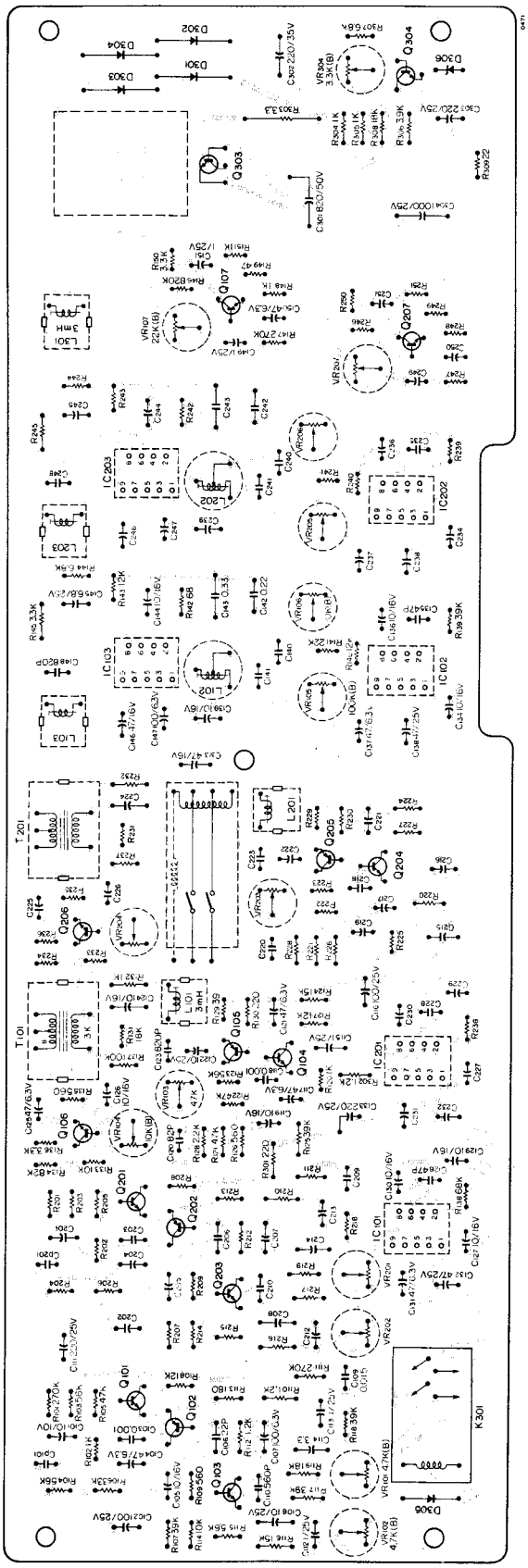
# BIAS OSCILLATOR ASSY




| CIRCUIT REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 6-11 | 50489300 | PC Board Assy, Bias Osc. | | |
| | 50481840 | PC Board, Bias Osc. | | |
| T301 | 50563170 | Transformer, Oscillator | | |
| | | SILICON TRANSISTOR | | |
| Q301·302 | 50423850 | 2SC971 (with Heat Sink) | | |
| | | RESISTORS | | |
| R310 | 50525950 | Wire Wound 22 ohm 1W | | |
| R311·312 | 50514920 | Carbon 2.2k ohm 1/2W | | |
| R313 | 50514920 | Carbon 2.2k ohm 1/2W | | |
| R314 | 50515220 | Carbon 100 ohm 1/4W | | |
| R315·316 | 50514990 | Carbon 33 ohm 1/2W | | |
| | | CAPACITORS | | |
| C305 | | | | |
| C306·307 | 50548790 | Mylar 0.0022uF/150V | | |
| C308 | 50548530 | Mylar 0.0033uF/150V | | |
| C309 | 50544040 | Mica 4200pF/250V | | |
| C310 | 50548740 | Mylar 0.022uF/150V | | |
| C317 | 50548040 | Mylar 0.1uF/50V | | |

**PC BOARD**
**A-6010SL**

# PREAMPLIFIER



| CIRCUIT REF NO. | DESCRIPTION |
|---|---|
| Q101 / 201 | 2SC1000BL |
| Q102 / 202 | 2SK572Y1.4 |
| Q103 / 203 | 2SC945(P) |
| Q104 / 204 | 2SC693F8 |
| Q105 / 205 | 2SA494 Y |
| Q106 / 206 | 2SC733Y or 2SC536F |
| Q107 / 207 | 2SC733Y or 2SC536F |

| CIRCUIT REF NO. | DESCRIPTION |
|---|---|
| Q301, 302 | 2SC971 |
| Q303 | 2SD235 |
| Q304 | 2SC733Y |
| IC101 / 201 | TEAC42709 |
| IC102 / 202 | TEAC42709 |
| IC103 / 203 | TEAC42710 |

| | A-6010 / 7010 | A-7030 |
|---|---|---|
| C140 / 240 | 0.015 | 0.0068μF |
| C141 / 241 | 0.033 | 0.015μF |

# PREAMPLIFIER

| CIRCUIT REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 6-13 | 50489310 | PC Board Assy, Preamplifier | | |
| | 50482830 | PC Board, Preamplifier | | |
| | 50234870 | Heat Sink | | |
| K301 | 50610850 | Relay, MH-4P 2ZM1-0 | | |
| K302 | 50610870 | Relay, SBA-232J 12V | | |
| T101/201 | 50562141 | Transformer, Output 3k:8 ohm | | |
| | 50270160 | Cushion Rubber Ring | | |
| | | SILICON TRANSISTORS | | |
| Q101/201 | 50423870 | 2SC1000(BL) | | |
| Q102/202 | 50424170 | 2SA666(I) or | | |
| | 50424140 | 2SA572(YL4) | | |
| Q103/203 | 50423310 | 2SC536(F) | | |
| Q104/204 | 50424180 | 2SC693(Fa) | | |
| Q105/205 | 50423870 | 2SA666(S) or 2SA494(Y) | | |
| Q106/206 | 50423510 | 2SC733(Y) or 2SC828(R, S) | | |
| Q107/207 | 50423310 | 2SC536(F) or | | |
| | | 2SC828(R, S) or | | |
| | 50423510 | 2SC733(Y) | | |
| Q303 | 50424190 | 2SD235 or | | |
| | | 2SC1226(A-Q) | | |
| Q304 | 50423510 | 2SC733(Y) | | |
| | | INTEGRATED CIRCUITS | | |
| IC101/201 | 50427090 | LD-3120 | | |
| IC102/202 | 50427090 | LD-3120 | | |
| IC103/203 | 50427100 | LD-3141 | | |
| | | DIODES | | |
| D301-304 | 50422560 | SIB01-02 | | |
| D305 | 50422560 | SIB01-02 | | |
| D306 | 50422580 | Zener | | |
| | | COILS | | |
| L101/201 | 50566300 | Record Compensation 4.2/2.4mH | | |
| L102/202 | 50566370 | Trap 3mH | | |
| L103/203 | 50566300 | Trap 3mH | | |
| L301 | 50566500 | Dummy Load | | |

# PREAMPLIFIER *(CONTINUED)*

| CIRCUIT REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| | | CARBON RESISTORS | | |
| | | *ALL RESISTORS IN OHMS, 10% TOLERANCE 1/4 WATTS AND FIXED CARBON FILM TYPE UNLESS OTHERWISE NOTED* | | |
| R101/201 | 50515700 | 270k | | |
| R102/202 | 50515340 | 1k | | |
| R103/203 | 50515610 | 56k | | |
| R104/204 | 50515610 | 56k | | |
| R105/205 | 50515590 | 47k | | |
| R106/206 | 50515570 | 33k | | |
| R107/207 | 50515580 | 39k | | |
| R108/208 | 50515500 | 12k | | |
| R109/209 | 50515310 | 560 | | |
| R110/210 | 50515350 | 1.2k | | |
| R111/211 | 50515700 | 270k | | |
| R112/212 | 50515350 | 1.2k | | |
| R113/213 | 50515250 | 180 | | |
| R114/214 | 50515490 | 10k | | |
| R115/215 | 50515460 | 5.6k | | |
| R116/216 | 50515510 | 15k | | |
| R117/217 | 50515580 | 39k | | |
| R118/218 | 50515580 | 39k | | |
| R119/219 | 50515520 | 18k | | |
| R120/220 | 50515340 | 1k | | |
| R121/221 | 50519810 | 47k | | |
| R122/222 | 50515590 | 47k | | |
| R123/223 | 50515610 | 56k | | |
| R124/224 | 50515510 | 15k | | |
| R125/225 | 50515580 | 39k | | |
| R126/226 | 50515310 | 560 | | |
| R127/227 | 50515500 | 12k | | |
| R128/228 | 50515380 | 2.2k | | |
| R129/229 | 50515160 | 39 | | |
| R130/230 | 50515260 | 220 | | |
| R131/231 | 50515520 | 18k | | |
| R132/232 | 50515340 | 1k | | |
| R133/233 | 50515490 | 10k | | |
| R134/234 | 50515630 | 82k | | |
| R135/235 | 50515310 | 560 | | |
| R136/236 | 50515410 | 3.3k | | |
| R137/237 | 50515640 | 100k | | |
| R138/238 | 50515620 | 68k | | |
| R139/239 | 50515430 | 3.9k | | |
| R140/240 | 50515500 | 12k | | |
| R141/241 | 50515540 | 22k | | |
| R142/242 | 50515200 | 68 | | |
| R143/243 | 50515500 | 12k | | |
| R144/244 | 50515470 | 6.8k | | |
| R145/245 | 50515410 | 3.3k | | |

# PREAMPLIFIER *(CONTINUED)*

| CIRCUIT REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| R146/246 | 50515680 | 220k | | |
| R147/247 | 50515700 | 270k | | |
| R148/248 | 50515340 | 1k | | |
| R149/249 | 50515170 | 47 | | |
| R150/250 | 50515410 | 3.3k | | |
| R151/251 | 50515340 | 1k | | |
| R301 | 50515260 | 220 | | |
| R302 | 50515350 | 1.2k | | |
| R303 | 50525930 | Wire Wound 3.3/1W | | |
| R304 | 50515340 | 1k | | |
| R305 | 50515340 | 1k | | |
| R306 | 50515430 | 3.9k | | |
| R307 | 50515520 | 8.2k | | |
| R308 | 50515520 | 18k | | |
| R309 | 50515130 | 22 | | |
| | | TRIMMER RESISTORS | | |
| VR101/201 | 50533460 | 4.7k B | | |
| VR102/202 | 50533460 | 4.7k B | | |
| VR103/203 | 50533520 | 47k B | | |
| VR104/204 | 50533480 | 10k B | | |
| VR105/205 | 50533490 | 100k B | | |
| VR106/206 | 50533480 | 10k B | | |
| VR107/207 | 50533560 | 22k B | | |
| | | CAPACITORS | | |
| | | *ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.* | | |
| C101/201 | 50546190 | Tantalum 10/10V | | |
| C102/202 | 50554170 | Elec. 100/25V | | |
| C103/203 | 50548780 | Mylar 0.001/50V | | |
| C104/204 | 50554030 | Elec. 47/6.3V | | |
| C105/205 | 50554270 | Elec. 10/16V | | |
| C106/206 | 50544080 | Polyst. 22p/50V | | |
| C107/207 | 50554230 | Elec. 100/6.3V | | |
| C108/208 | 50554040 | Elec. 10/25V | | |
| C109/209 | 50548420 | Mylar 0.015/50V | | |
| C110/210 | 50544090 | Polyst. 560p/50V | | |
| C111/211 | 50554180 | Elec. 220/25V | | |
| C112/212 | 50546120 | Tantalum 1/25V | | |
| C113/213 | 50546120 | Tantalum 1/25V | | |
| C114/214 | 50546220 | Tantalum 3.3/25V | | |
| C115/215 | 50554810 | Elec. 1/25V | | |
| C116/216 | 50554170 | Elec. 100/25V | | |
| C117/217 | 50554030 | Elec. 47/6.3V | | |
| C118/218 | 50548780 | Mylar 0.001/50V | | |

# PREAMPLIFIER *(CONTINUED)*

| CIRCUIT REF NO. | TEAC PARTS NO. | DESCRIPTION | | 1ST | 2ND |
|---|---|---|---|---|---|
| C119/219 | 50554055 | Elec. | 10/16V | | |
| C120/220 | 50544100 | Polyst. | 82p/50V | | |
| C121/221 | 50554030 | Elec. | 47/6.3V | | |
| C122/222 | 50554510 | Elec. | 10/25V | | |
| C123/223 | 50544120 | Polyst. | 820p/50V | | |
| C124/224 | 50554050 | Elec. | 10/16V | | |
| C125/225 | 50554030 | Elec. | 47/6.3V | | |
| C126/226 | 50554050 | Elec. | 10/16V | | |
| C127/227 | 50554050 | Elec. | 10/16V | | |
| C128/228 | 50544110 | Polyst. | 47p/50V | | |
| C129/229 | 50554050 | Elec. | 10/16V | | |
| C130/230 | 50554050 | Elec. | 10/16V | | |
| C131/231 | 50554030 | Elec. | 47/6.3V | | |
| C132/232 | 50554490 | Elec. | 47/25V | | |
| C133/233 | 50554180 | Elec. | 220/25V | | |
| C134/234 | 50554050 | Elec. | 10/16V | | |
| C135/235 | 50544110 | Polyst. | 47p/50V | | |
| C136/236 | 50554050 | Elec. | 10/16V | | |
| C137/237 | 50554030 | Elec. | 47/6.3V | | |
| C138/238 | 50554490 | Elec. | 47/25V | | |
| C139/239 | 50554050 | Elec. | 10/16V | | |
| C140/240 | 50548290 | Mylar | 0.022/50V | | |
| C141/241 | 50548630 | Mylar | 0.039/50V | | |
| C142/242 | 50548680 | Mylar | 0.33/50V | | |
| C142'/242' | 50548660 | Mylar | 0.22/50V | | |
| C144/244 | 50554055 | Elec. | 10/16V | | |
| C145/245 | 50546200 | Tantalum | 10/25V | | |
| C146/246 | 50554770 | Elec. | 47/16V | | |
| C147/247 | 50554230 | Elec. | 100/6.3V | | |
| C148/248 | 50544120 | Polyst. | 820p/50V | | |
| C149/249 | 50554810 | Elec. | 1/25V | | |
| C150/250 | 50554030 | Elec. | 47/6.3V | | |
| C151/251 | 50554810 | Elec. | 1/25V | | |
| C301 | 50557080 | Elec. | 820/50V | | |
| C302 | 50554800 | Elec. | 220/35V | | |
| C303 | 50554180 | Elec. | 220/25V | | |
| C304 | 50557050 | Elec. | 1000/25V | | |

# 14 EXPLODED VIEW AND PARTS LIST

*FOR*

REPLACEMENT INFORMATION

Replacement part are available through your nearest TEAC dealer or directly from the TEAC office.
Changes are constantly being made to make TEAC products better and more reliable.
Therefore, when ordering parts, always include the following information:

*MODEL* *SERIAL NO.* *REF NO.* *PART NO.* *DESCRIPTION*

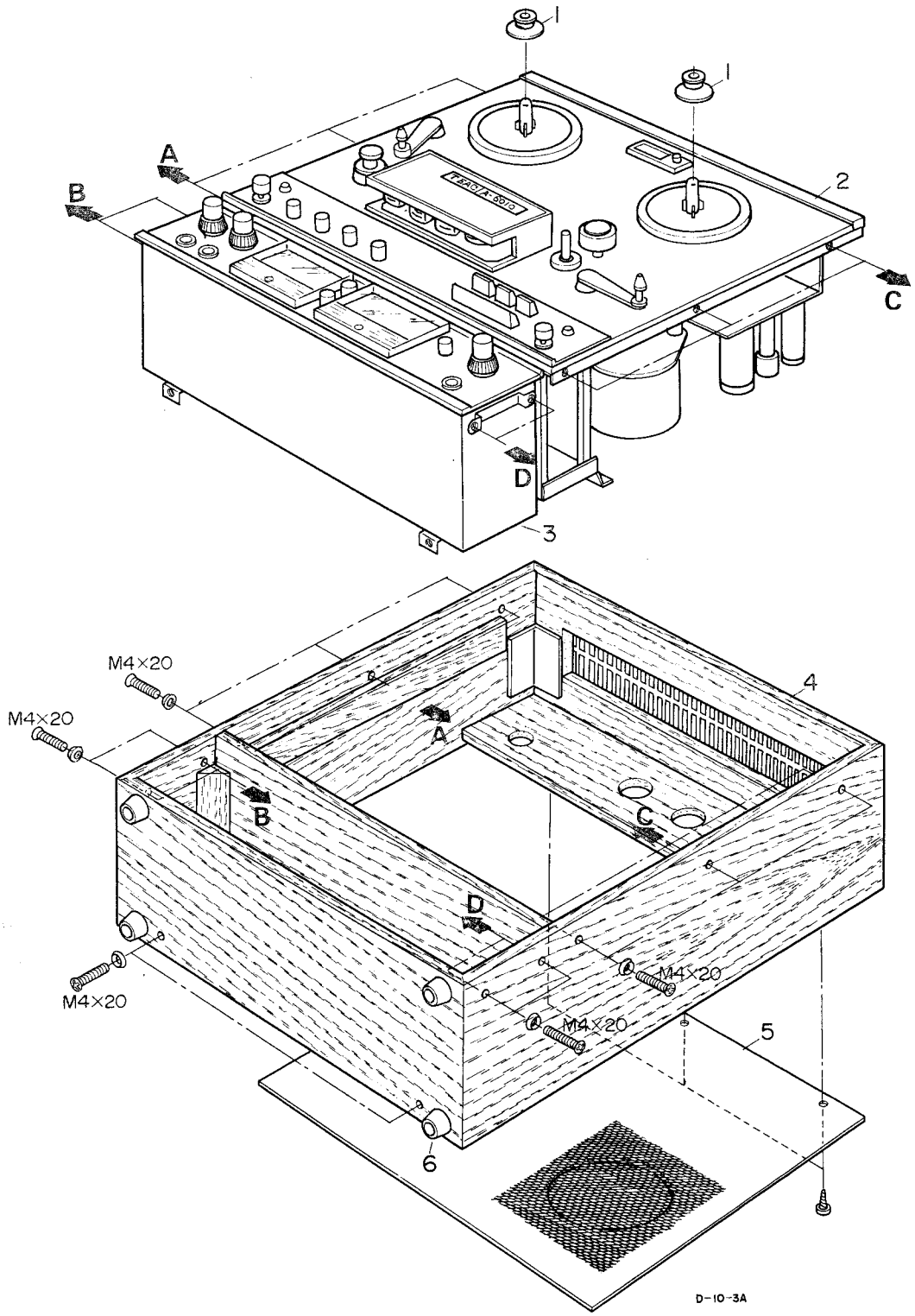
NOTE

The basic design of the A-6010SL is highly similar to that of the A-6010, therefore information in this exploded view may be applied to the A-6010SL.

Refer to the last page of this section for revised parts to the A-6010SL and comparison chart.

EXPLODED VIEW
A-6010

# TRIM PARTS

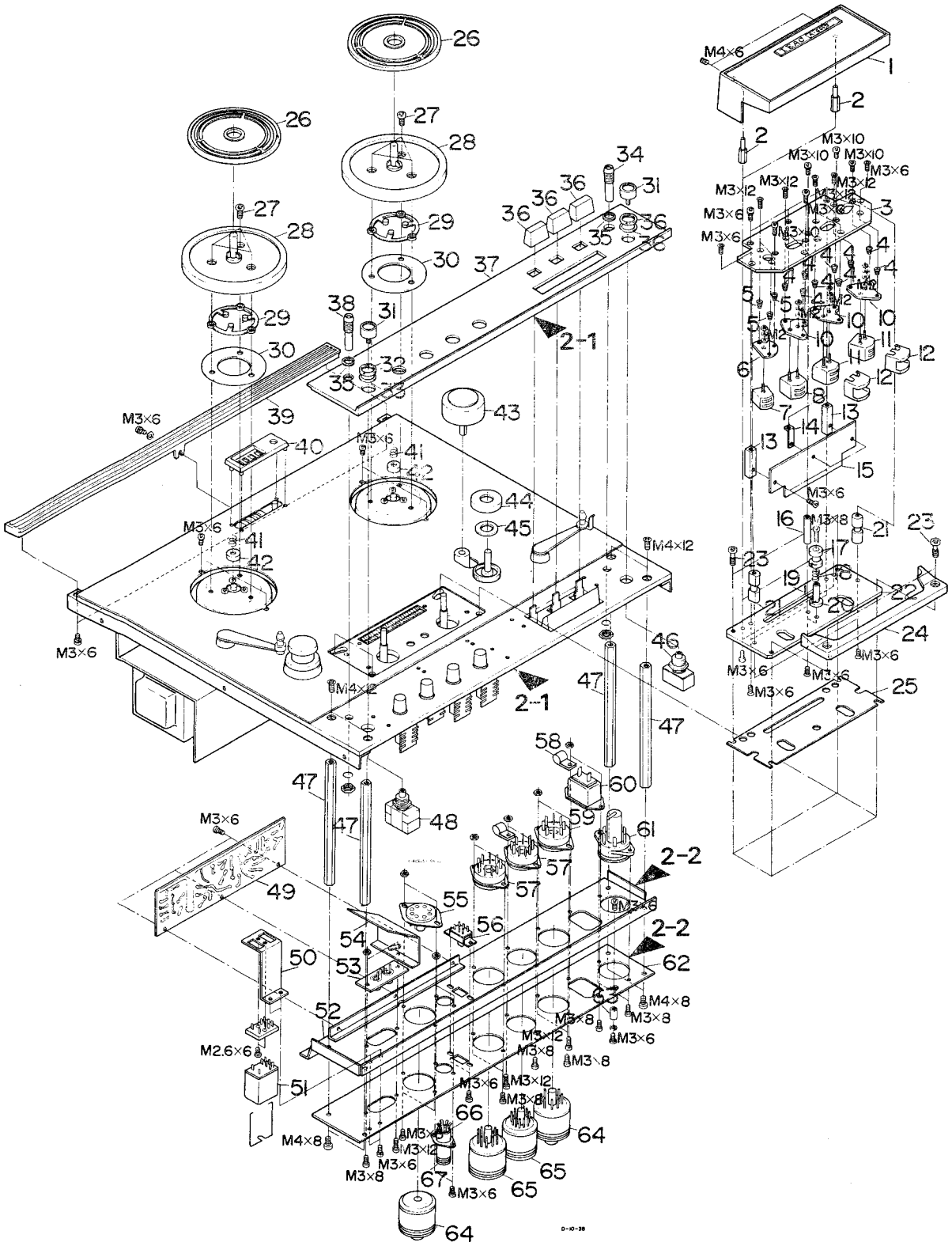


# TRIM PARTS

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 1-1 | 50161580 | Reel Holder | | |
| 1-2 | 50870270 | Transport | | |
| 1-3 | 50400310 | Preamplifier AR-60 | | |
| 1-4 | 50286300 | Wooden Case | | |
| 1-5 | 50286340 | Rear Cover | | |
| 1-6 | 50283830 | Mount Foot | | |

EXPLODED VIEW
A-6010

# ABOVE MAIN CHASSIS



# ABOVE MAIN CHASSIS

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 2- 1 | 50133710 | Head Housing | | |
| 2- 2 | 50133760 | Mount Stand-Off, Head Housing | | |
| 2- 3 | 50133734 | Head Mount Base Plate | | |
| 2- 4 | 50220500 | Spring, Head, B | | |
| 2- 5 | 50220470 | Spring, Head, A | | |
| 2- 6 | 50133601 | Mount Plate, Erase Head | | |
| 2- 7 | 50663031 | Head, Erase | | |
| 2- 8 | 50666041 | Head, Record | | |
| 2- 9 | | | | |
| 2-10 | 50133830 | Mount Plate, Head, C | | |
| 2-11 | 50669041 | Head, Playback | | |
| 2-12 | 50133702 | Head Shield, A | | |
| 2-13 | 50132610 | Mount Stand-Off, Head Assy | | |
| 2-14 | 50132601 | Mount Bracket, PC Board | | |
| 2-15 | 50480530 | PC Board, Head | | |
| 2-16 | 50241140 | Mount Stand-Off, Round Type | | |
| 2-17 | 50132640 | Tape Guide | | |
| 2-18 | 50220110 | Spring, Tape Guide | | |
| 2-19 | 50132650 | Tape Guide Pin | | |
| 2-20 | 50132630 | Tape Guide Shaft | | |
| 2-21 | 50133810 | Tape Guide | | |
| 2-22 | 50133741 | Housing Base Plate | | |
| 2-23 | 50132770 | Screw, Head Assy Mount | | |
| 2-24 | 50133720 | Lower Head Protector | | |
| 2-25 | 50133751 | Shield Plate, Head Assy | | |
| 2-26 | 50161472 | Reel Table Mat | | |
| 2-27 | 50277380 | Screw, M4 x 8 | | |
| 2-28 | 50161523 | Reel Table | | |
| 2-29 | 50162000 | Shim, Red (2.0t) | | |
| | 50162010 | Shim, White (2.4t) | | |
| | 50162020 | Shim, Black (2.7t) | | |
| 2-30 | 50162321 | Spacer, Reel Table 0.2t | | |
| | 50162311 | Spacer, Reel Table 0.4t | | |
| 2-31 | 50252280 | Push Button | | |
| 2-32 | 50252290 | Trim Nut | | |
| 2-33 | 50273440 | Washer, A | | |
| 2-34 | 50414260 | Lamp, Record On Indicator | | |
| 2-35 | 50273340 | Washer, Indicator Lamp | | |
| 2-36 | 50252270 | Push Button, Operate | | |
| 2-37 | 50111780 | Panel, Control | | |
| 2-38 | 50414170 | Lamp, Power On Indicator | | |
| 2-39 | 50112730 | Air Vent | | |
| 2-40 | 50271810 | Escutcheon, Index Counter | | |
| 2-41 | 50221190 | Spring | | |
| 2-42 | 50162130 | Center Bushing, Reel Table | | |
| 2-43 | 50140260 | Pinch Roller Assy | | |
| 2-44 | 50122863 | Dust Cap | | |
| 2-45 | 50124190 | Sponge Oiler | | |
| 2-46 | 50443281 | SW, Push, Record | | |
| 2-47 | 50241150 | Mount Stand-Off, Chassis Stay | | |

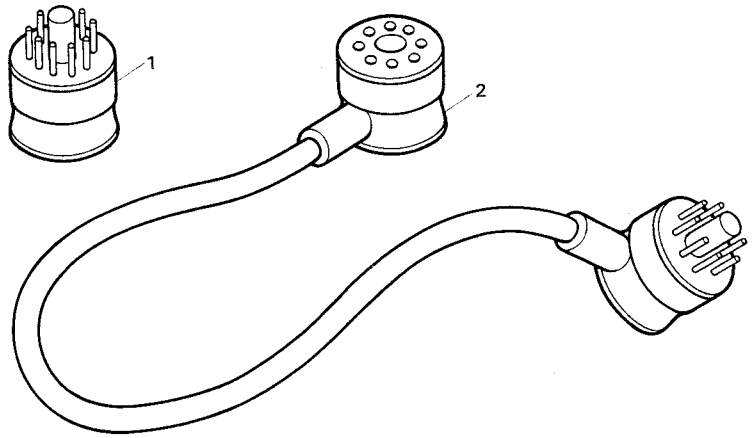
# ABOVE MAIN CHASSIS *(CONTINUED)*

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 2-48 | 50443291 | SW, Push, Power | | |
| 2-49 | 50489450 | PC Board Assy, Reverse Amp | | |
| 2-50 | 50133880 | Mount Bracket, Head Relay | | |
| 2-50 | 50133880 | Mount Bracket, Head Relay | | |
| 2-51 | 50610980 | Relay, Head MRP-200-104C | | |
| 2-52 | 50233810 | Connector Chassis | | |
| 2-53 | 50434630 | Pin Jack, 2P | | |
| 2-54 | 50111811 | Shield Plate, Head Relay | | |
| 2-55 | 50434650 | Socket, US 8P Male | | |
| 2-56 | 50444080 | SW, Slide, Repeat | | |
| 2-57 | 50432350 | Socket, 11P Female | | |
| 2-58 | 50276280 | Wire Clamp | | |
| 2-59 | 50434090 | Socket, US 8P Female | | |
| 2-60 | 50431051 | Receptacle, AC | | |
| 2-61 | 50412142 | Fuse Holder, Voltage Selector | | |
| 2-62 | 50111803 | Trim Panel, Plastic | | |
| 2-63 | 50241160 | Post, GND Terminal | | |
| 2-64 | 50471060 | Connector Cord Assy | *50475130 | |
| 2-65 | 50434490 | Dummy Plug, 11P Male | *50432520 | |
| 2-66 | 50430250 | Receptacle, Pause 6P | | |
| 2-67 | 50430260 | Dummy Plug, Pause | | |

NOTE

* See Exploded View, Connector Cord Assy

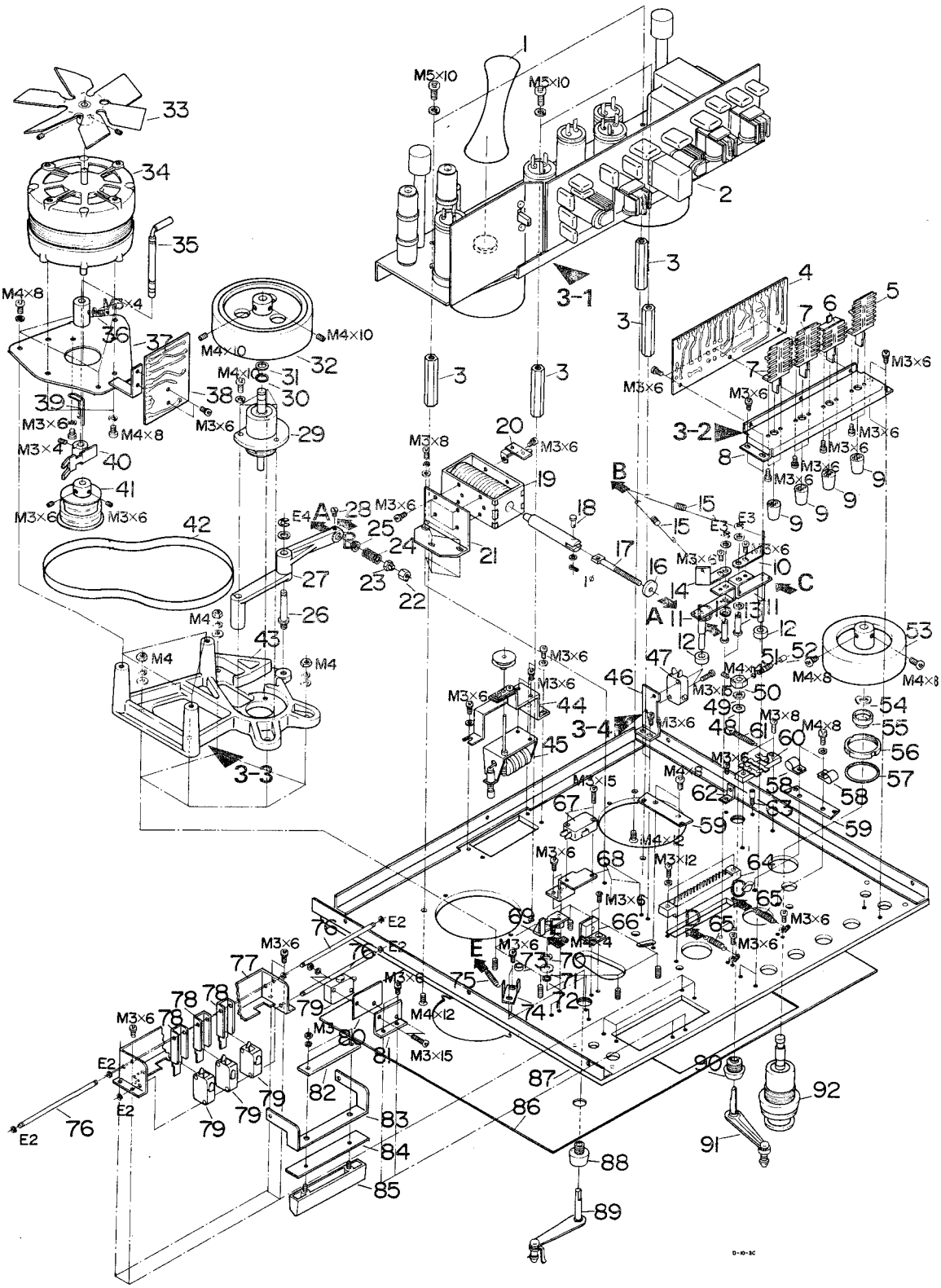
# CONNECTOR CORD ASSY




| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 3- 1 | 50432520 | Dummy Plug, 11P Male | | |
| 3- 2 | 50475130 | Connector Cord Assy | | |

EXPLODED VIEW
A-6010

# BELOW MAIN CHASSIS



# BELOW MAIN CHASSIS

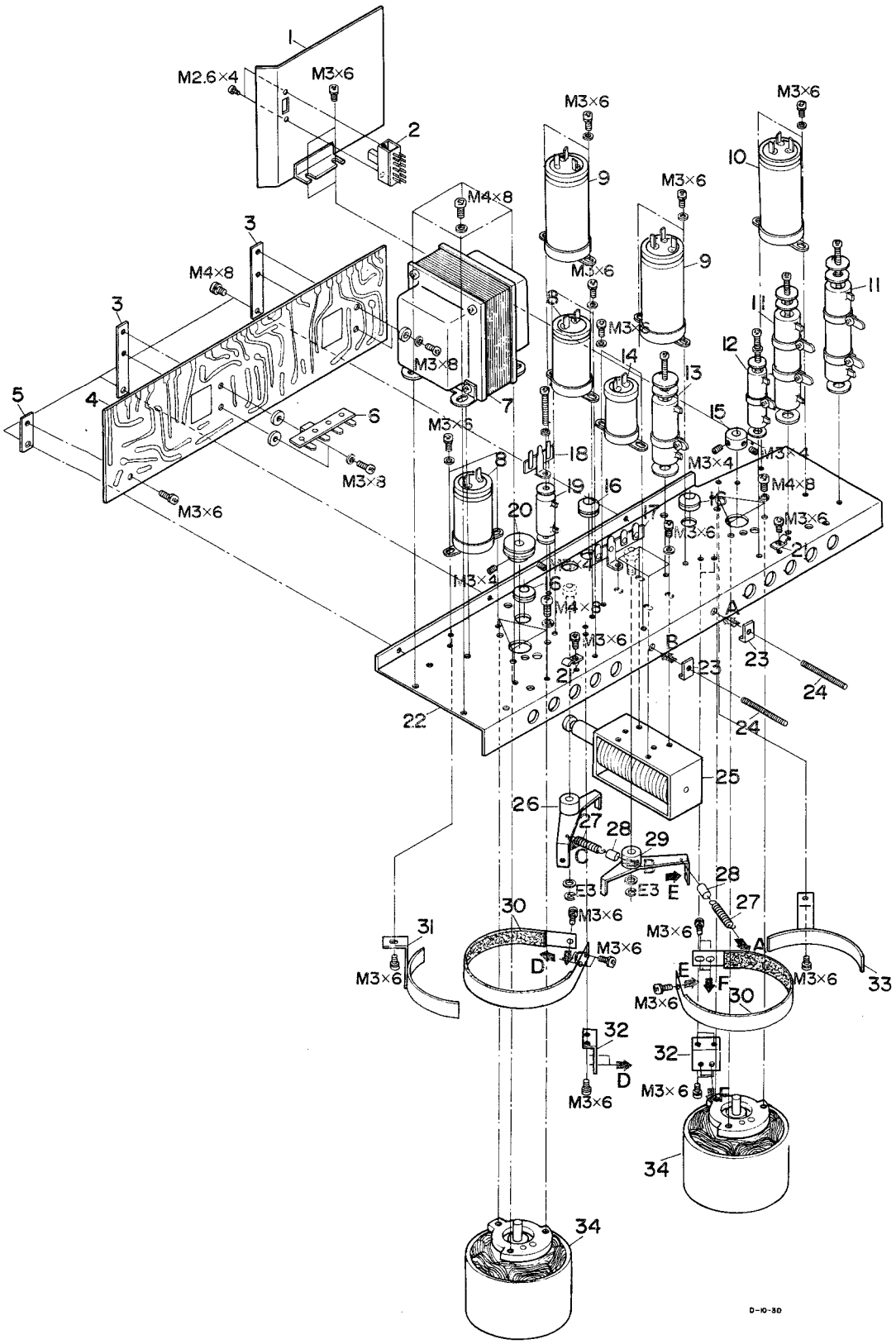
| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 4- 1 | 50273161 | Belt, Index Counter | | |
| 4- 2 | 50160230 | Reel Motor Assy | | |
| 4- 3 | 50111720 | Mount Stand-Off, Base Plate | | |
| 4- 4 | 50481860 | PC Board Assy, Record Relay | | |
| 4- 5 | 50443300 | SW, Push, Tape Speed | | |
| 4- 6 | 50443320 | SW, Push, Tape Thickness Selector | | |
| 4- 7 | 50443310 | SW, Push, Auto Reverse | | |
| 4- 8 | 50273031 | Mount Plate, Operate SW | | |
| 4- 9 | 50252320 | Push Button, A | | |
| 4-10 | 50152520 | Lifter Arm Lower, L | | |
| 4-11 | 50150130 | Lifter Arm Assy | | |
| 4-12 | 50277350 | Rubber Ring | | |
| 4-13 | 50151981 | Lifter Arm Shaft | | |
| 4-14 | 50152510 | Lifter Arm Lower, R | | |
| 4-15 | 50151963 | Spring, Lifter | | |
| 4-16 | 50273320 | Felt Washer | | |
| 4-17 | 50121530 | Screw, Pressure Adjust | | |
| 4-18 | 50124070 | Plunger Pin, A | | |
| 4-19 | 50616393 | Solenoid, Capstan | | |
| 4-20 | 50452080 | Terminal Strip, 1L1P | | |
| 4-21 | 50141550 | Mount Plate, Solenoid | | |
| 4-22 | 50141511 | Lock Nut, B | | |
| 4-23 | 50141501 | Lock Nut, A | | |
| 4-24 | 50220410 | Spring, Pressure | | |
| 4-25 | 50141581 | Washer | | |
| 4-26 | 50141571 | Roller Arm Shaft | | |
| 4-27 | 50141594 | Pinch Roller Arm | | |
| 4-28 | 50151970 | Screw, Lifter Spring | | |
| 4-29 | 50124020 | Capstan Assy | | |
| 4-30 | 50124380 | Plastic Washer, A | | |
| 4-31 | 50124170 | Steel Washer, B | | |
| 4-32 | 50123022 | Flywheel, Capstan | | |
| 4-33 | 50124350 | Fan | | |
| 4-34 | 50701170 | Motor, Capstan | | |
| 4-35 | 50122942 | Freq. Change Lever | | |
| 4-36 | 50277330 | Vinyl Washer | | |
| 4-37 | 50124310 | Mount Plate, Capstan Motor | | |
| 4-38 | 50540170 | PC Board Assy, Noise Suppression | | |
| 4-39 | 50122950 | Spring, Belt Change Lock | | |
| 4-40 | 50122772 | Belt Change Guide | | |
| 4-41 | 50124390 | Motor Pulley | | |
| 4-42 | 50122850 | Belt, Capstan | | |
| 4-43 | 50122901 | Capstan Assy Base | | |
| 4-44 | 50277430 | Mount Bracket, Index Counter | | |
| 4-45 | 50277420 | Index Counter | | |
| 4-46 | 50273141 | Mount Bracket, Micro SW | | |
| 4-47 | 50446180 | SW, Micro | | |
| 4-48 | 50182140 | Thrust Washer | | |
| 4-49 | 50221200 | Spring Washer | | |
| 4-50 | 50277390 | Nut | | |

# BELOW MAIN CHASSIS

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 4-51 | 50123140 | Spring Retainer Pin | | |
| 4-52 | 50277400 | Vinyl Tube | | |
| 4-53 | 50122141 | Flywheel, Impedance Roller | | |
| 4-54 | 50221210 | Spring Washer | | |
| 4-55 | 50124110 | Shoulder Washer, Impedance Roller | | |
| 4-56 | 50121430 | Collar Nut | | |
| 4-57 | 50121440 | Washer | | |
| 4-58 | 50276280 | Wire Clamp | | |
| 4-59 | 50133770 | Mount Plate, Head Assy | | |
| 4-60 | 50453150 | Terminal Strip | | |
| 4-61 | 50220030 | Spring, Tension Arm Return | | |
| 4-62 | 50111710 | Bracket, Limit Stop | | |
| 4-63 | 50181360 | Pin, Limit Stop | | |
| 4-64 | 50438130 | Connector, 18P | | |
| 4-65 | 50152020 | Spring, Lifter Return | | |
| 4-66 | 50272940 | Mount Bracket, Magnet | | |
| 4-67 | 50446180 | SW, Micro | | |
| 4-68 | 50272951 | Mount Bracket, Micro SW | | |
| 4-69 | 50277412 | Micro SW Actuator Arm | | |
| 4-70 | 50221200 | Spring Washer | | |
| 4-71 | | Flat Washer, 5ϕ x 12ϕ x 0.8t | | |
| 4-72 | 50182140 | Thrust Washer | | |
| 4-73 | 50182950 | Cushion, Rubber | | |
| 4-74 | 50141561 | Limit, Tension Arm R | | |
| 4-75 | 50182311 | Spring, Tension Arm R | | |
| 4-76 | 50252301 | SW Mount Rod | | |
| 4-77 | 50273050 | Bracket, SW, A | | |
| 4-78 | 50273070 | Bracket, SW, C | | |
| 4-79 | 50446090 | SW, Micro | | |
| 4-80 | 50271790 | Insulate Plate | | |
| 4-81 | 50273040 | Mount Bracket, SW | | |
| 4-82 | 50273150 | Bracket, SW, D | | |
| 4-83 | 50273060 | Bracket, SW, B | | |
| 4-84 | 50273120 | Cushion, Rubber | | |
| 4-85 | 50252340 | Push Button, Stop | | |
| 4-86 | 50111761 | Panel, Trim | | |
| 4-87 | 50111751 | Panel, Chassis | | |
| 4-88 | 50181920 | Arm Bushing, Right | | |
| 4-89 | 50180450 | Tension Arm Assy, Right | | |
| 4-90 | 50182870 | Arm Bushing, Left | | |
| 4-91 | 50182830 | Tension Arm Assy, Left | | |
| 4-92 | 50126231 | Impedance Roller Assy | | |

EXPLODED VIEW
A-6010

# REEL MOTOR ASSY

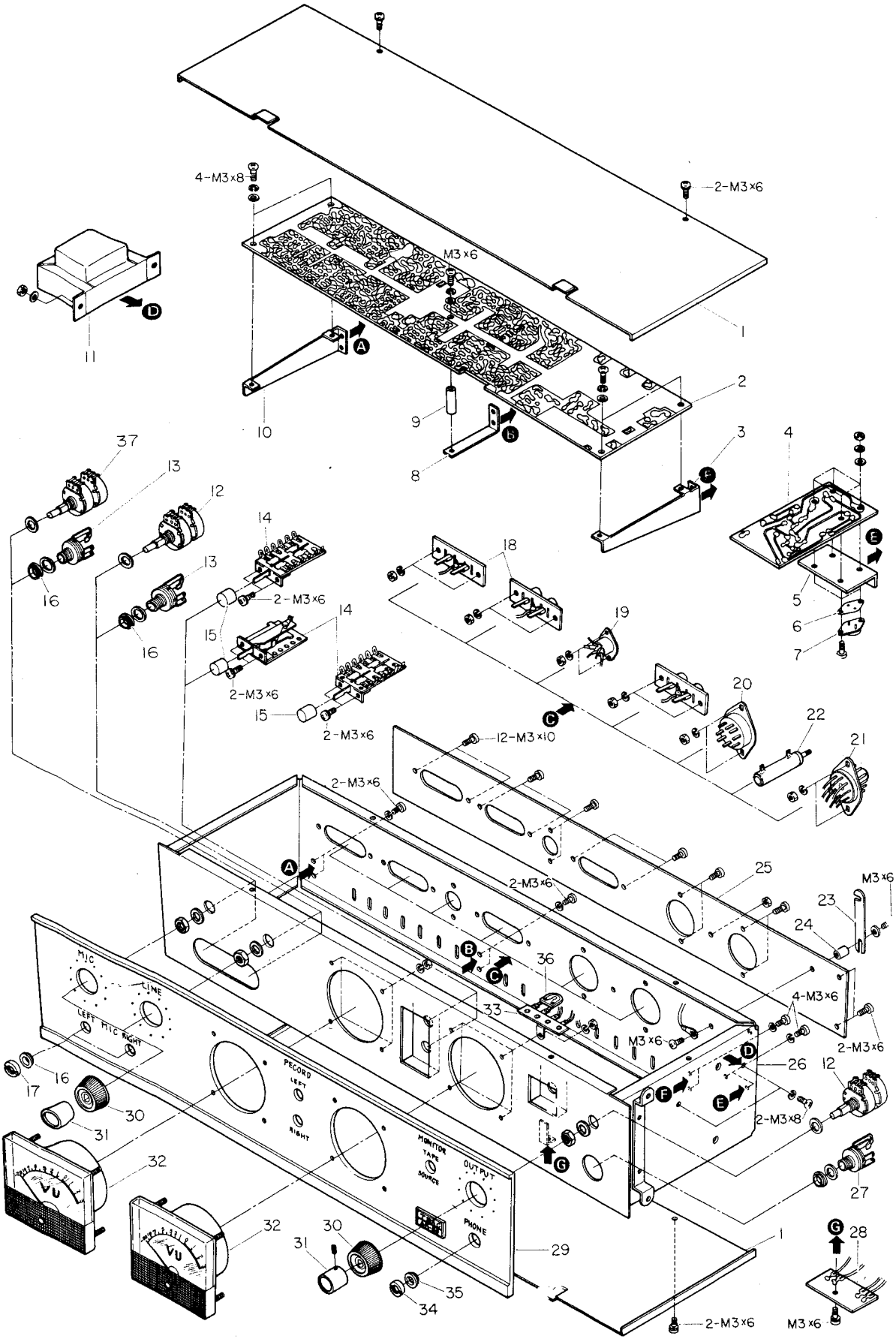


# REEL MOTOR ASSY

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 5- 1 | 50134460 | Shield, Heat | | |
| 5- 2 | 50444210 | SW, Slide, Freq. Selector | | |
| 5- 3 | 50273090 | Reinforcing Plate, B | | |
| 5- 4 | 50489560 | PC Board Assy, Control Relay | | |
| 5- 5 | 50273081 | Reinforcing Plate, A | | |
| 5- 6 | 50452010 | Terminal Strip, 1L3P | | |
| 5- 7 | 50561504 | Transformer, Power | | |
| 5- 8 | 50551120 | Cap., Elec. 100uF/160V | | |
| 5- 9 | 50545670 | Cap., MP 1 + 3.2uF/250V | | |
| 5-10 | 50545310 | Cap., MP 1 + 2.8uF/250V | | |
| 5-11 | 50520433 | Resistor, Wire Wound 300 ohm/30W | | |
| 5-12 | 50524350 | Resistor, Wire Wound 50 ohm/10W | | |
| 5-13 | 50524340 | Resistor, Wire Wound 1.5k/20W | | |
| 5-14 | 50551170 | Cap., Elec. 1000uF/16V | | |
| 5-15 | 50123010 | Collar, Reel Motor | | |
| 5-16 | 50323011 | Grommet | | |
| 5-17 | 50452010 | Terminal Strip, 1L3P | | |
| 5-18 | 50452060 | Terminal Strip, 1L2P | | |
| 5-19 | 50524360 | Resistor, Wire Wound 10 ohm/5W | | |
| 5-20 | 50273170 | Counter Pulley | | |
| 5-21 | 50273000 | Oil Pipe Clamp | | |
| 5-22 | 50161518 | Mount Plate, Reel Motor | | |
| 5-23 | 50277370 | Nut Plate | | |
| 5-24 | 50277360 | Screw, Brake Adjustment | | |
| 5-25 | 50616402 | Solenoid, Brake | | |
| 5-26 | 50172140 | Brake Arm, Left | | |
| 5-27 | 50172210 | Spring, Brake | | |
| 5-28 | | Tube | | |
| 5-29 | 50172130 | Brake Arm, Right | | |
| 5-30 | 50172233 | Brake Band | | |
| | 50172840 | Brake Felt | | |
| 5-31 | 50172741 | Brake Retainer, Left | | |
| 5-32 | 50172750 | Mount Bracket, Brake Band | | |
| 5-33 | 50172731 | Brake Retainer, Right | | |
| 5-34 | 50702201 | Motor, Reel, Outer Rotor | | |

EXPLODED VIEW
A-6010

# PREAMPLIFIER CHASSIS

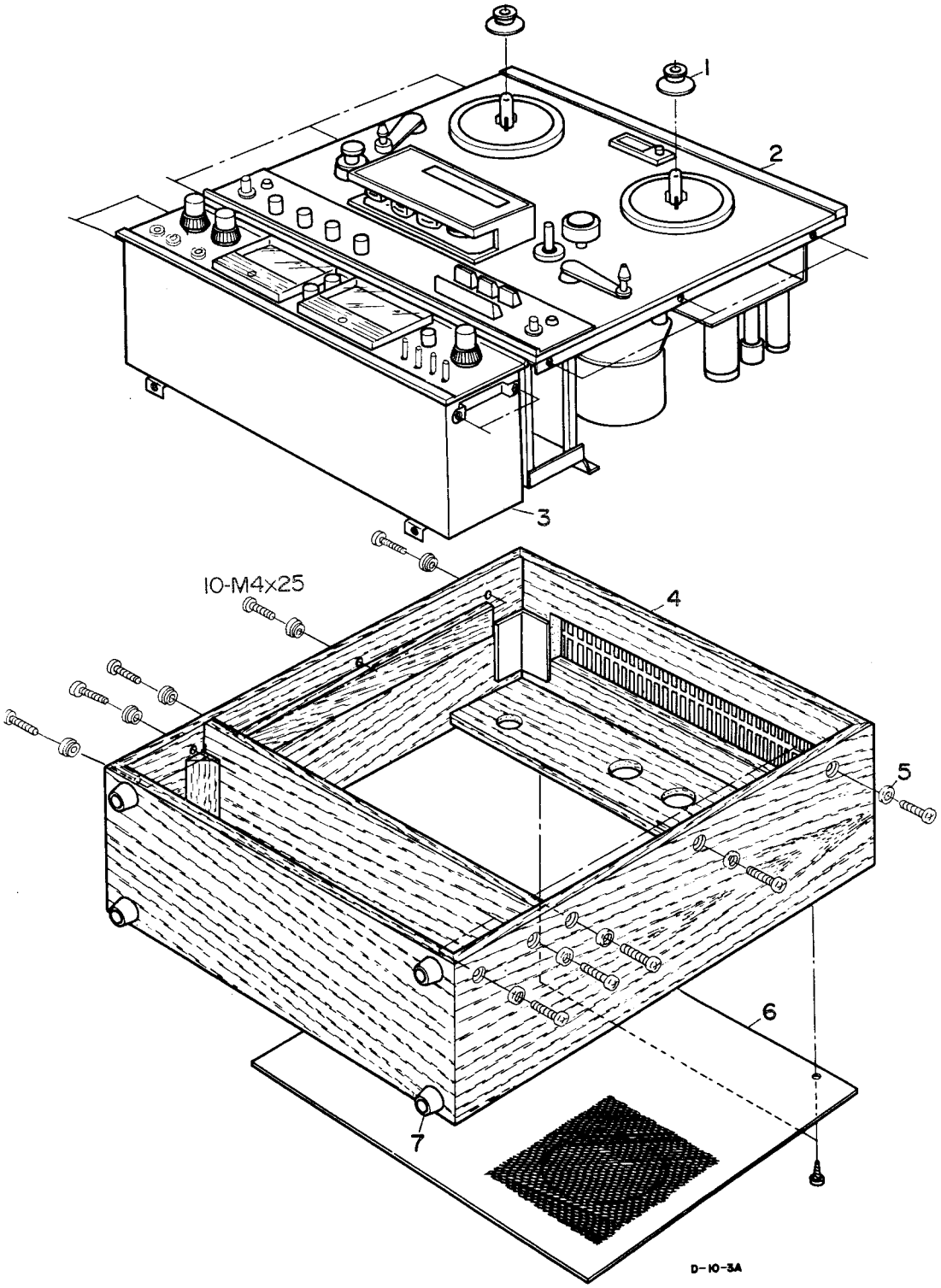


# PREAMPLIFIER CHASSIS

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 6- 1 | 50233831 | Cover, Amp Chassis | | |
| 6- 2 | 50481850 | PC Board Assy, Preamplifier | | |
| 6- 3 | 50231920 | Mount Bracket, B | | |
| 6- 4 | 50563160 | PC Board Assy, Bias Osc. | | |
| 6- 5 | 50233860 | Mount Plate, Power Transistor | | |
| 6- 6 | | Insulate Sheet | | |
| 6- 7 | 50423420 | Transistor, Power 2SC491(Y) | | |
| 6- 8 | 50231930 | Mount Bracket, C | | |
| 6- 9 | 50240630 | Mount Stand-Off | | |
| 6-10 | 50231910 | Mount Bracket, A | | |
| 6-11 | 50561321 | Transformer, Power | | |
| 6-12 | 50537090 | Potentiometer, Dual, 100k | | |
| 6-13 | 50430100 | Phone Jack, Microphone, Single | | |
| 6-14 | 50443270 | SW, Push, Record | | |
| 6-15 | 50252320 | Push Button | | |
| 6-16 | 50272620 | Insulate Washer | | |
| 6-17 | 50231951 | Trim Nut, A | | |
| 6-18 | 50434630 | Pin Jack, 2P | | |
| 6-19 | 50430010 | Connector, DIN | | |
| 6-20 | 50434650 | Socket, US 8P Female | | |
| 6-21 | 50434090 | Socket, US 8P Male | | |
| 6-22 | 50527020 | Resistor, Wire Wound 320 ohm 10W | | |
| 6-23 | (16300330) | Shorting Bar | | |
| 6-24 | 50241160 | Post, GND Terminal | | |
| 6-25 | 50232021 | Trim Panel, Plastic, Preamp. | | |
| 6-26 | 50233820 | Chassis, Preamplifier | | |
| 6-27 | 50432670 | Phone Jack, Headphone, 3 cond. | | |
| 6-28 | 50277530 | PC Board Assy, Meter Adjust | | |
| 6-29 | 50231991 | Panel, Amp Trim | | |
| 6-30 | 50252331 | Knob, Inner | | |
| 6-31 | 50252261 | Knob, Outer | | |
| 6-32 | 50581142 | VU Meter | | |
| 6-33 | 50452020 | Terminal Strip 1L-3P | | |
| 6-34 | 50231961 | Trim Nut, B | | |
| 6-35 | 50272620 | Insulate Washer | | |
| 6-36 | 50533060 | Trimmer Resistor, 150k | | |
| 6-37 | 50537100 | Potentiometer, Dual, 10k | | |

EXPLODED VIEW
A-6010SL

# TRIM PARTS

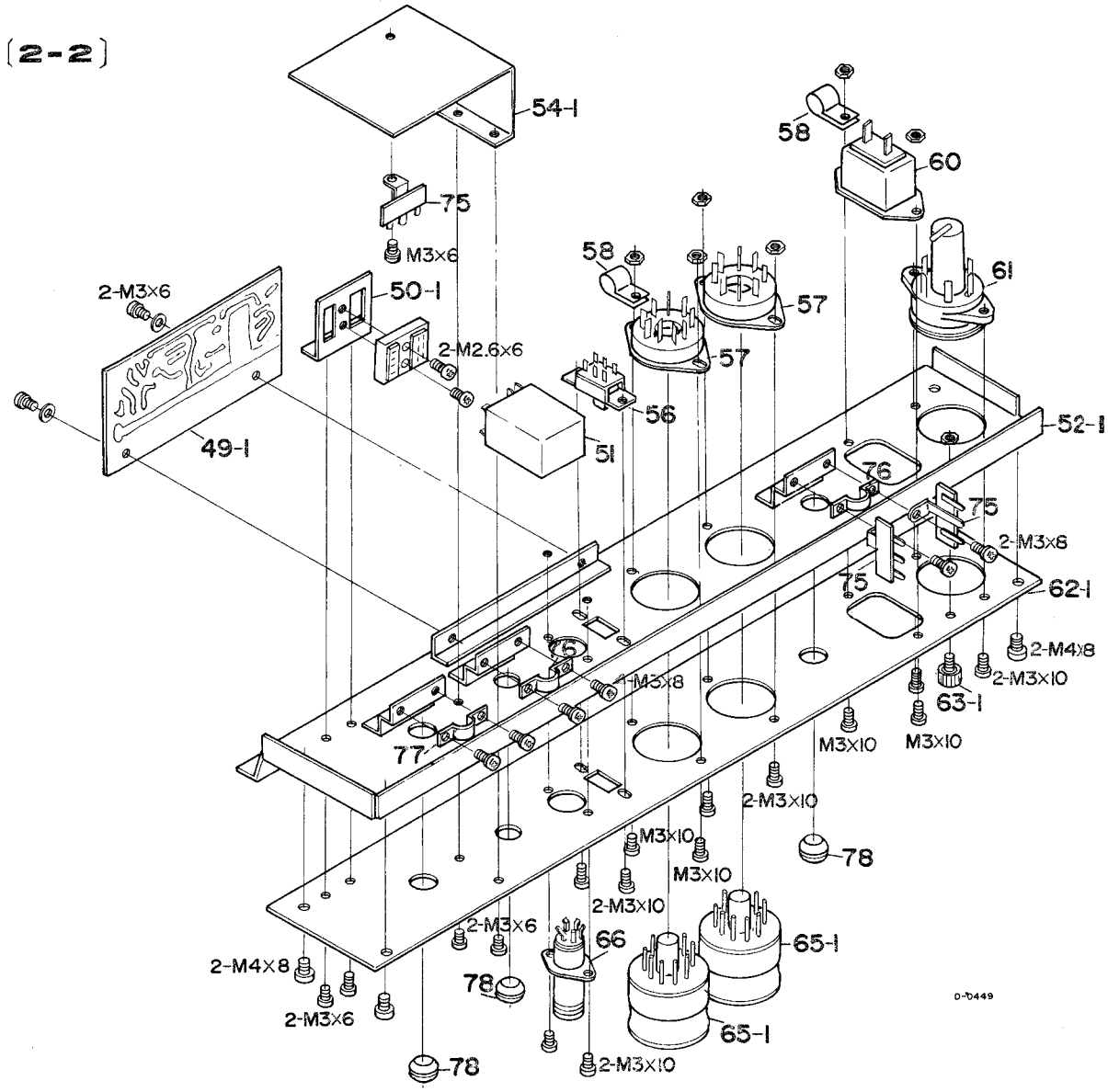


# TRIM PARTS

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 1-1 | 50161580 | Reel Holder | | |
| 1-2 | 50870270 | Transport | | |
| 1-3 | 50400610 | Preamplifier AR-70SL | | |
| 1-4 | 50287511 | Wooden Case | | |
| 1-5 | 50296930 | Countersunk Trim Washer | | |
| 1-6 | 50286340 | Rear Cover | | |
| 1-7 | 50283830 | Mount Foot | | |

EXPLODED VIEW
A-6010SL

# ABOVE MAIN CHASSIS
## PARTIAL



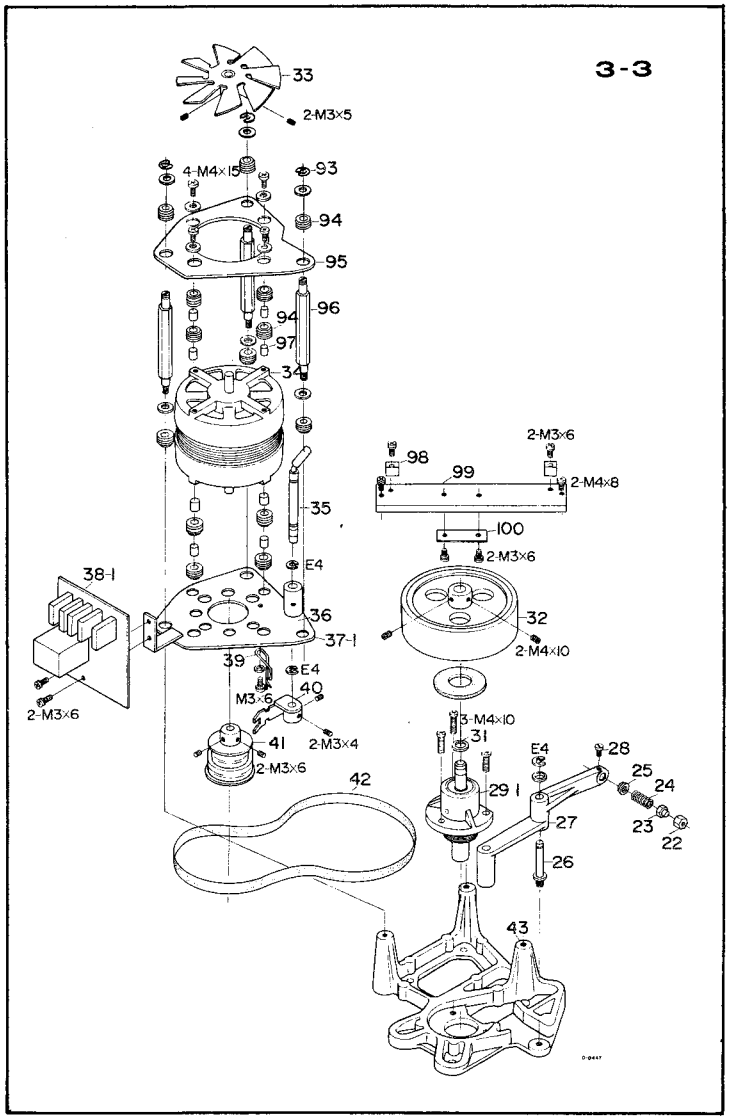
# ABOVE MAIN CHASSIS
## PARTIAL

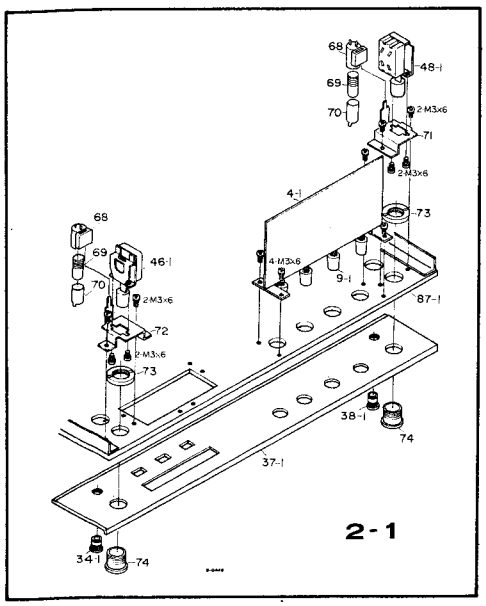
| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| **2-2** | | | | |
| 2-49-1 | 50489280 | PC Board Assy, Auto Reverse Amp | | |
| 2-50-1 | 50135350 | Mount Bracket, Head Relay | | |
| 2-51 | 50610420 | Relay, Head | | |
| 2-52-1 | 50234931 | Connector Chassis | | |
| 2-54-1 | 50135360 | Shield Plate, Head Relay | | |
| 2-56 | 50444080 | SW, Slide, Repeat | | |
| 2-57 | 50432350 | Socket, 11P Female | | |
| 2-58 | 50276280 | Wire Clamp, A | | |
| 2-60 | 50431051 | Receptacle, AC | | |
| 2-61 | 50412142 | Fuse Holder, Voltage Selector | | |
| 2-62-1 | 50113271 | Trim Panel, Plastic | | |
| 2-63-1 | 50454071 | Screw, GND Terminal | | |
| 2-65-1 | 50432520 | Dummy Plug, 11P | | |
| 2-66 | 50430270 | Receptacle, Pause 6P | | |
| | 50430260 | Dummy Plug, Pause 6P | | |
| 2-75 | 50452170 | Terminal Strip, 1L2P | | |
| 2-76 | 50279480 | Clamp, A | | |
| 2-77 | 50279490 | Clamp, B | | |
| 2-78 | 50323010 | Cushion, Rubber | | |

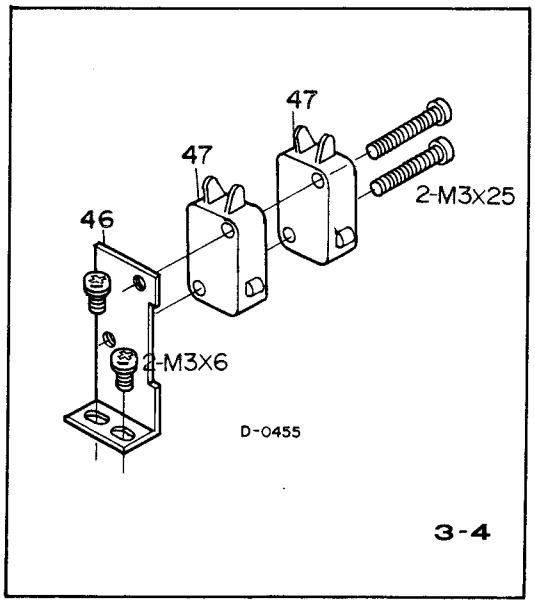
EXPLODED VIEW

A-6010SL

# BELOW MAIN CHASSIS



# BELOW MAIN CHASSIS

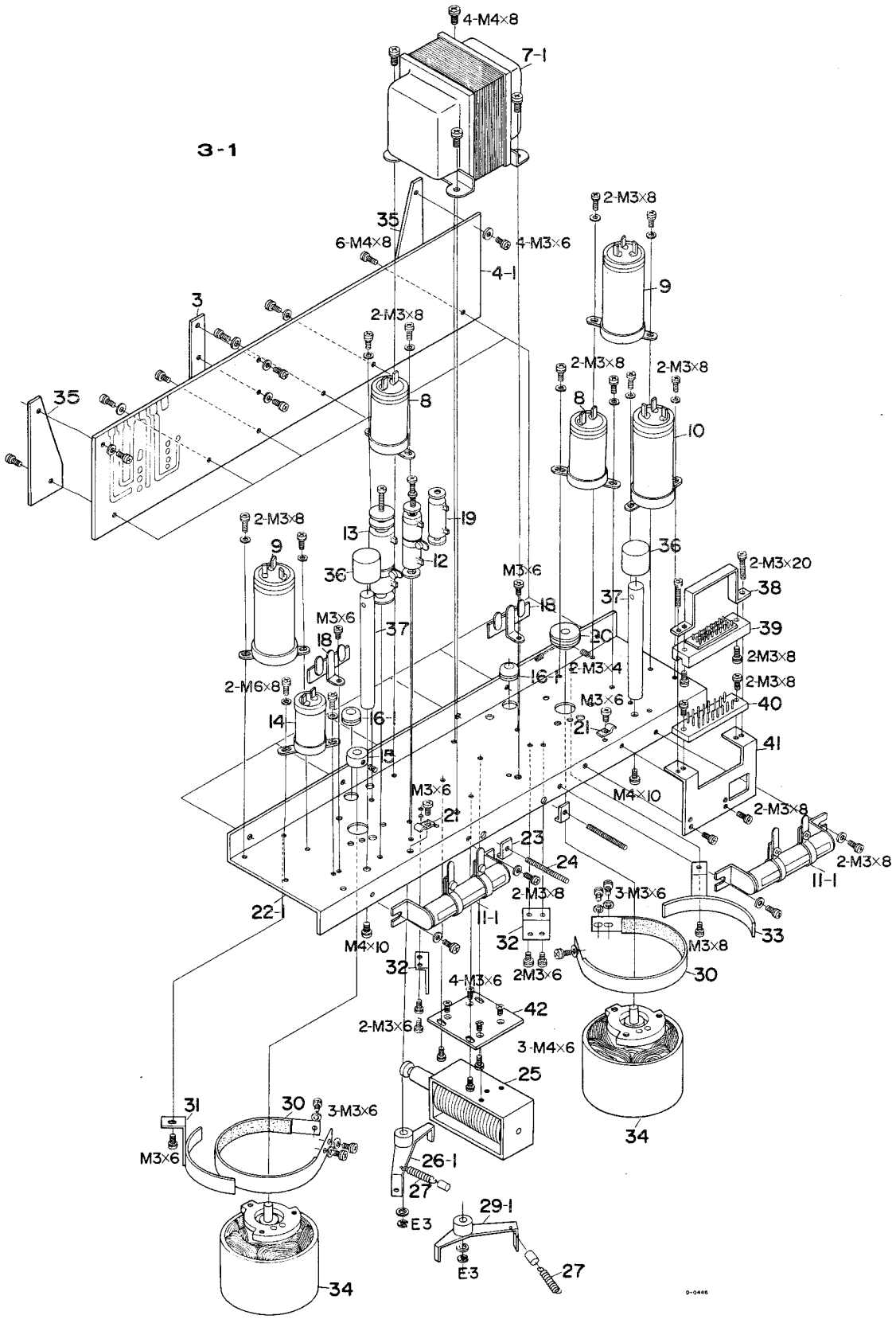
## PARTIAL

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| **3-3** | | | | |
| 4-22 | 50141501 | Lock Nut, A | | |
| 4-23 | 50141511 | Lock Nut, B | | |
| 4-24 | 50220041 | Spring, Pressure | | |
| 4-25 | 50141581 | Washer | | |
| 4-26 | 50141571 | Roller Arm Shaft | | |
| 4-27 | 50141594 | Pinch Roller Arm | | |
| 4-28 | | | | |
| 4-29-1 | 50120360 | Capstan Assy | | |
| 4-31 | 50124180 | Plastic Washer | | |
| 4-32 | 50124220 | Flywheel, Capstan | | |
| 4-33 | 50123023 | Fan | | |
| 4-34 | 50701170 | Motor, Capstan | | |
| 4-35 | 50122943 | Freq. Change Lever | | |
| 4-36 | | | | |
| 4-37-1 | 50124331 | Mount Plate, Capstan Motor | | |
| 4-38-1 | 50489220 | PC Board Assy, Noise Suppression | | |
| 4-39 | 50122950 | Spring, Belt Change Lock | | |
| 4-40 | 50122772 | Belt Change Guide | | |
| 4-41 | 50124390 | Motor Pulley (STD only) | | |
| 4-42 | 50122850 | Belt, Capstan | | |
| 4-43 | 50122901 | Capstan Assy Base | | |
| 4-93 | 50277730 | E Clip | | |
| 4-94 | 50706211 | Cushion, Rubber | | |
| 4-95 | 50124310 | Mount Plate, Motor Support | | |
| 4-96 | 50241220 | Mount Stand Off, Capstan Motor | | |
| 4-97 | 50241210 | Spacer | | |
| 4-98 | 50270771 | Wire Clamp | | |
| 4-99 | 50234720 | Angle, Thrust | | |
| 4-100 | 50277230 | Plate, Thrust | | |
| **3-4** | | | | |
| 4-46 | 50273142 | Mount Bracket, Micro SW | | |
| 4-47 | 50446180 | SW, Micro V-1A44 | | |
| **2-1** | | | | |
| 4- 4-1 | 50489270 | PC Board Assy, Record Relay | | |
| 4- 9-1 | 50253500 | Push Button, B | | |
| | 50443670 | Push SW Assy | | |
| 4-34-1 | 50415181 | Bezel, Record On Indicator | | |
| 4-37-1 | 50113200 | Panel, Control | | |
| 4-38-1 | 50415171 | Bezel, Power On Indicator | | |
| 4-46-1 | 50443410 | SW, Push, Record (Non Lock) | | |
| 4-48-1 | 50926280 | SW, Push, Power | | |
| 4-68 | 50415030 | Socket, Lamp | | |
| 4-69 | 50414131 | Lamp, 8V | | |
| 4-70 | 50419050 | Pilot Cover | | |
| 4-71 | 50234780 | Mount Bracket, Power SW | | |
| 4-72 | 50234770 | Mount Bracket, Record SW | | |
| 4-73 | 50210470 | Nut | | |
| 4-74 | 50253510 | Bezel, Push Button | | |
| 4-87-1 | 50113180 | Panel, Chassis | | |

EXPLODED VIEW

A-6010SL

# REEL MOTOR ASSY



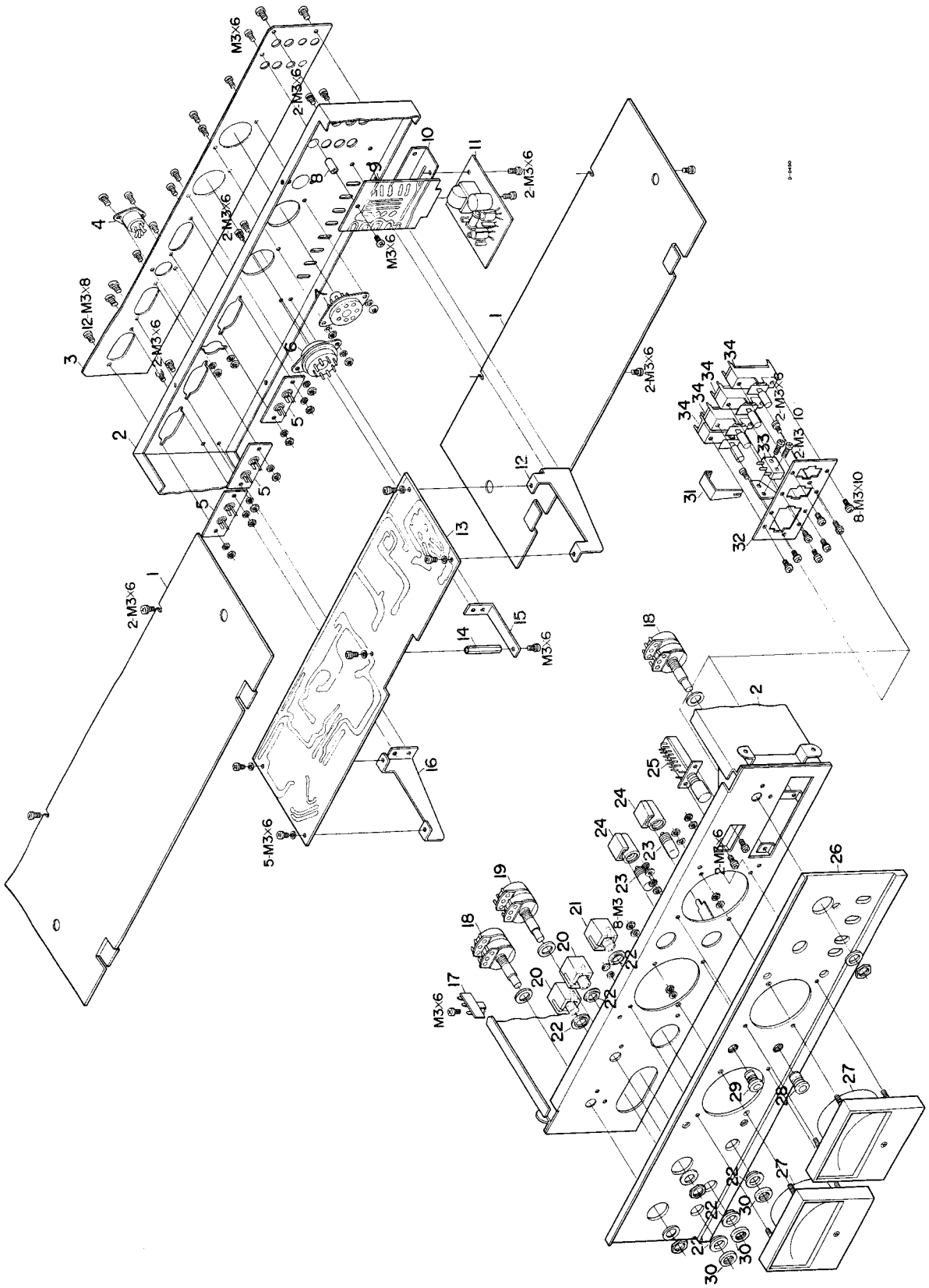
# REEL MOTOR ASSY

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 5- 3 | 50234790 | Reinforcing Plate | | |
| 5- 4-1 | 50489331 | PC Board Assy, Control Relay | | |
| 5- 7-1 | 50561880 | Transformer, Power | | |
| 5- 8 | 50551120 | Cap., Elec. 100uF/160V | | |
| 5- 9 | 50545670 | Cap., MP 1 + 3.2uF/250V | | |
| 5-10 | 50545310 | Cap., MP 1 + 2.8uF/250V | | |
| 5-11-1 | 50524330 | Resistor, Wire Wound 300 ohm/30W | | |
| 5-12 | 50524350 | Resistor, Wire Wound 50 ohm/10W | | |
| 5-13 | 50524342 | Resistor, Wire Wound 1.5k/20W | | |
| 5-14 | 50551170 | Cap., Elec. 1000uF/16V | | |
| 5-15 | 50123010 | Collar, Reel Motor | | |
| 5-16-1 | 50323011 | Grommet | | |
| 5-18 | 50452170 | Terminal Strip, 1L2P | | |
| 5-19 | 50524360 | Resistor, Wire Wound 10 ohm/5W | | |
| 5-20 | 50273170 | Counter Pulley | | |
| 5-21 | 50273000 | Oil Pipe Clamp | | |
| 5-22-1 | 50234901 | Mount Plate, Reel Motor | | |
| 5-23 | 50277370 | Nut Plate | | |
| 5-24 | 50277360 | Screw, Brake Adjustment | | |
| 5-25 | 50616403 | Solenoid, Brake | | |
| 5-26-1 | 50172140 | Brake Arm, Left | | |
| 5-27 | 50172210 | Spring, Brake | | |
| 5-28 | | | | |
| 5-29-1 | 50172130 | Brake Arm, Right | | |
| 5-30 | 50172233 | Brake Band | | |
| | 50172840 | Felt | | |
| 5-31 | 50172741 | Brake Retainer, Left | | |
| 5-32 | 50212810 | Bracket, Brake Band | | |
| 5-33 | 50172731 | Brake Retainer, Right | | |
| 5-34 | 50702201 | Motor, Reel, Outer Rotor | | |
| 5-35 | 50277630 | Reinforcing Plate | | |
| 5-36 | 50321740 | Rubber Foot | | |
| 5-37 | 50240661 | Mount Stand-Off Deck Support | | |
| 5-38 | 50287490 | Connector Handle | | |
| 5-39 | 50438200 | Connector, 34P Male | | |
| 5-40 | 50436390 | Connector, 34P Female | | |
| 5-41 | 50234340 | Mount Plate, Connector | | |
| 5-42 | 50616423 | Mount Plate, Solenoid, B | | |

EXPLODED VIEW

A-6010SL

# PREAMPLIFIER CHASSIS



# PREAMPLIFIER CHASSIS

| REF NO. | TEAC PARTS NO. | DESCRIPTION | 1ST | 2ND |
|---|---|---|---|---|
| 6- 1 | 50233831 | Cover, Amp Chassis | | |
| 6- 2 | 50234801 | Chassis, Preamplifier | | |
| 6- 3 | 50113251 | Trim Panel, Plastic, Preamp. | | |
| 6- 4 | 50430010 | Connector, DIN | | |
| 6- 5 | 50434631 | Pin Jack, 2P | | |
| 6- 6 | 50434650 | Socket, US 8P Female | | |
| 6- 7 | 50434090 | Socket, US 8P Male | | |
| 6- 8 | 50241730 | Spacer | | |
| 6- 9 | 50489320 | PC Board Assy, Bias Adjust | | |
| 6-10 | 50234880 | Mount Angle, Osc. Assy | | |
| 6-11 | 50489300 | PC Board Assy, Bias Osc. | | |
| 6-12 | 50234850 | Mount Bracket, A | | |
| 6-13 | 50489310 | PC Board Assy, Preamplifier | | |
| 6-14 | 50241720 | Mount Stand-Off | | |
| 6-15 | 50231930 | Mount Bracket, C | | |
| 6-16 | 50234860 | Mount Bracket, B | | |
| 6-17 | 50452170 | Terminal Strip, 1L2P | | |
| 6-18 | 50537090 | Potentiometer, Dual, 100k | | |
| 6-19 | 50537100 | Potentiometer, Dual, 10k | | |
| 6-20 | 50430240 | Phone Jack, Microphone, Single | | |
| 6-21 | 50432450 | Phone Jack, Headphone 3 cond. | | |
| 6-22 | 50272620 | Insulate Washer, B | | |
| 6-23 | 50414131 | Lamp, 8V | | |
| 6-24 | 50415030 | Socket, Lamp | | |
| 6-25 | 50443630 | SW, Push, Monitor | | |
| 6-26 | 50113240 | Panel, Amp Trim | | |
| 6-27 | 50581301 | VU Meter | | |
| 6-28 | 50415190 | Bezel, Lamp (Violet) | | |
| 6-29 | 50415180 | Bezel, Lamp (Red) | | |
| 6-30 | 50231951 | Trim Nut | | |
| 6-31 | 50235230 | Bracket, Micro SW | | |
| 6-32 | 50235220 | Mount Plate, Toggle SW | | |
| 6-33 | 50446330 | SW, Micro | | |
| 6-34 | 50937580 | SW, Toggle | | |

# A-6010SL AND A-6010
# PARTS COMPARISON CHART

| DESCRIPTION | A-6010 | | A-6010SL | |
|---|---|---|---|---|
| | REF NO. | PARTS NO. | REF NO. | PARTS NO. |
| Head Housing | 2- 1 | 50133710 | | 50135330 |
| Emblem (A-6010 only) | | | | 50264720 |
| Emblem (6010 only) | | | | 50264750 |
| Reel Table Mat | 2-26 | 50161472 | | 50162771 |
| Reel Table | 2-28 | 50161523 | | 50161524 |
| Push Button | 2-31 | 50252280 | | 50252320 |
| Bezel, Push Button | 2-32 | 50252290 | 4-74 | 50253510 |
| Lamp, Record | 2-34 | 50414260 | 4-69 | 50414131 |
| Panel, Control | 2-37 | 50111780 | 4-37-1 | 50113200 |
| Lamp, Power | 2-38 | 50414170 | 4-69 | 50414131 |
| SW, Push, Rec | 2-46 | 50443281 | 4-46-1 | 50443410 |
| SW, Push, Power | 2-48 | 50443291 | 4-48-1 | 50926280 |
| Reverse Amp Assy | 2-49 | 50489450 | 2-49-1 | 50489280 |
| PC Board, Reverse Amp | | 50480490 | | 50482030 |
| Mount Bracket, Head Relay | 2-50 | 50133880 | 2-50-1 | 50135350 |
| Connector Chassis | 2-52 | 50233810 | 2-52-1 | 50234931 |
| Pin Jack 2P | 2-53 | 50434630 | | |
| Shield Plate, Head Relay | 2-54 | 50111811 | 2-54-1 | 50135360 |
| Socket, US 8P (M) | 2-55 | 50434650 | | |
| Socket, US 8P (F) | 2-59 | 50434090 | | |
| Trim Panel, Plastic | 2-62 | 50111803 | 2-62-1 | 50113271 |
| GND Terminal | 2-63 | 50241160 | 2-63-1 | 50454071 |
| Terminal Strip, 1L2P | | | 2-75 | 50452170 |
| Clamp, A | | | 2-76 | 50279480 |
| Clamp, B | | | 2-77 | 50279490 |
| Cushion, Rubber | | | 2-78 | 50323010 |
| Connector Cord, A | 3- 2 | 50475130 | | 50475590 |
| Connector Cord, B | 3- 2 | 50475130 | | 50475600 |
| Rec Relay Assy | 4- 4 | 50481860 | 4- 4-1 | 50489270 |
| PC Board, Rec Relay | | 50480502 | | 50481990 |
| Push SW Assy | 4- 5 | 50443300 | 4- 9-1 | 50443670 |
| | 4- 6 | 50443320 | | |
| | 4- 7 | 50443310 | | |
| Mount Plate, Operate SW | 4- 8 | 50273031 | | |
| Push Button, A | 4- 9 | 50252320 | 4- 9-1 | 50253500 |
| Terminal Strip, 1L1P | 4-20 | 50452080 | | |
| Capstan Assy | 4-29 | 50124020 | 4-29-1 | 50120360 |
| Plastic Washer, A | 4-30 | 50124380 | | |
| Steel Washer, B | 4-31 | 50124170 | | |
| Steel Washer, A | | 50124160 | | |
| Bezel, Rec Lamp | | | 4-34-1 | 50415181 |
| Freq. Change Lever | 4-35 | 50122942 | 4-35 | 50122943 |
| Mount Plate, Cap. Motor | | | | |
| (UL only) | 4-37 | 50124340 | 4-37-1 | 50124341 |
| (ST only) | 4-37 | 50124330 | 4-37-1 | 50124331 |
| Noise Suppression Assy | 4-38 | 50540170 | 4-38-1 | 50489220 |
| PC Board, Noise Suppression | | 50480700 | | 50482860 |
| Bezel, Power Lamp | | | 4-38-1 | 50415171 |
| Socket, Lamp | | | 4-68 | 50415030 |
| Pilot Cover | | | 4-70 | 50419050 |

# A-6010SL AND A-6010
# PARTS COMPARISON CHART

| DESCRIPTION | A-6010 | | A-6010SL | |
|---|---|---|---|---|
| | REF NO. | PARTS NO. | REF NO. | PARTS NO. |
| Mount Bracket, Power SW | | | 4-71 | 50234780 |
| Mount Bracket, Rec SW | | | 4-72 | 50234770 |
| Nut | | | 4-73 | 50210470 |
| Panel, Chassis | 4-87 | 50111751 | 4-87-1 | 50113180 |
| Angle, Thrust | | | 4-99 | 50234721 |
| Mount Stand-Off | | | | 50234731 |
| Plate, Thrust | | | 4-100 | 50277230 |
| Shield, Heat | 5- 1 | 50134460 | | |
| SW, Slide | 5- 2 | 50444210 | | 50444280 |
| Reinforcing Plate | 5- 3 | 50273090 | 5- 3 | 50234790 |
| Control Relay Assy | 5- 4 | 50489560 | 5- 4-1 | 50489331 |
| PC Board, Control Relay | | 50480712 | | 50482040 |
| Reinforcing Plate, A | 5- 5 | 50273081 | | |
| Terminal Strip, 1L3P | 5- 6 | 50452010 | | |
| Transformer, Power | 5- 7 | 50561770 | 5- 7-1 | 50561880 |
| Resistor, Wire Wound | 5-11 | 50520433 | 5-11-1 | 50524330 |
| Terminal Strip 1L2P | 5-18 | 50452060 | 5-18 | 50452170 |
| Mount Plate Reel Motor | 5-22 | 50161518 | 5-22-1 | 50234901 |
| Reinforcing Plate | | | 5-35 | 50277630 |
| Connector Handle | | | 5-38 | 50287490 |
| Connector, 34P Male | | | 5-39 | 50438200 |
| Connector, 34P Female | | | 5-40 | 50436390 |
| Mount Plate, Connector | | | 5-41 | 50234340 |
| Mount Plate, Solenoid, B | | | 5-42 | 50616423 |